THE BUILDER

INCORPORATING

"ARCHITECTURE" and "THE BRITISH ARCHITECT"

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CARLTON HOUSE TERRACE

CONTROVERSY over the design for the adaptation of Carlton House-terrace to the needs of a new Foreign Office continues briskly in Parliament, Press and council chamber. The chief objection to the design concerns the height of the proposed additions to Nash's famous façades. The partners of Mr. de Soissons (who is now abroad), in defending his design, point out that the new portion of the building "will rise only 14 ft. above the present level of the parapet of the end pavilions," and that "the top of this extension will begin to be visible only from the middle of the Mall, since it is set back some 80 ft. from the present façade." This, doubtless, is true, but it must be remembered that these end pavilions themselves rise two storeys—possibly a height of about 26 ft.—above the level of the cornice of the main colonnades to St. James's Park, so that the total height of the new work above this level, which is the relevant one, would be about 40 ft. Such a height, although it may be negligible when seen foreshortened from the middle of the Mall (where, by the way, few, if they are wise, will linger to admire architecture), becomes increasingly dominating with increasing distance, and the ultimate effect of the addition would probably be one of top-heaviness.

In our view, in dealing with historic buildings of architectural quality in such cases as this, where presumably nothing more than the façades are to be retained, the only rational thing to do is to preserve these in their integrity. An architectural composition such as the Nash terraces is not something that can be altered and added to without adversely affecting its appearance, which presumably is of some value, or why bother to retain it at all?

We have the greatest sympathy with the architects, who have some cause for feeling aggrieved that their design should be called in question nearly two-and-a-half years after its approval by the Crown Lands and the Royal Fine Art Commission. Nevertheless, we believe critical opinion to be right. The design should be restudied to see whether it is possible to provide adequate accommodation without any increase in height.

BUILDING WAGES

THE National Joint Council for the Building Industry last week decided to raise the wages of all workers, skilled and unskilled, in the building industry by 2½d. per hour as from March 5. This is a status increase of approximately 9s. to 10s. per week; it has nothing whatever to do with the cost of living—increases and decreases in which are automatically provided for under the Agreement.

This is the third status increase which the industry has had since the end of the war; there was a 4d. increase in 1945 and a 3d. increase in 1947. The present decision brings the status increase up to 9½d. per hour or approximately 35 per cent.

This decision will probably be acceptable to all except the extremists on both the employer and operative sides of the industry. It is in line with similar increases which have been agreed in other industries. Prior to the increase building industry wages, as represented by the weekly wage packet, came 15th out of the country's 19 major industries. The increase will bring the industry into eighth or ninth place. Its acceptance by building trades employers is facilitated by the fact that under present circumstances the whole increase can be passed on to the consumer, who is nine times out of ten the taxpayer and ratepayer. The consumer interest is not of course represented on the National Joint Council.

The increase will add about £25 to the cost of building a house

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THIS WEEK'S NEWS

MR. A. G. JURY, F.R.I.B.A., the Director of Housing for the City, has been appointed by the Glasgow Corporation to the newly created post of City Architect and Planning Officer. p. 227

THE AWARD of the Assessors in the Competition, organised by "The Builder," for designs for a Terrace House to be built at a cost not exceeding £1,000 is announced in this issue. All the designs submitted will be exhibited in London next week. p. 228

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS have appointed Mr. R. W. M. Orme, B.A., to the post of Assistant Secretary (Additional) at the Royal Institute. p. 228

ILLUSTRATIONS are given of the winning designs in the Competition for New City Halls and Offices, Nairobi. p. 231

A REVIEW of some of the builders' equipment, appliances and general material which are on show at the Midlands Building Exhibition is given on p. 253

A DECISION to make a wages increase of 2½d. per hour, to take effect on March 5, was made by the National Joint Council for the Building Industry last week. p. 256

THE REPORT of the committee appointed by the President of the Board of Trade in 1949 to consider the organisation and constitution of the British Standards Institution has now been issued. p. 257

and this in turn should represent an increased rental of 6d. per week. But as Local Authorities may average their losses over all housing accounts, it is unlikely that this increase will fall harshly on individual tenants. Purchasers of houses from private enterprise builders will, of course, have to meet the added cost out of their own pockets ; this is just one further item in the ever increasing cost of living.

An interesting speculation arises in our minds ; this wage increase, together with the anticipated higher cost of timber, will increase the cost of building so appreciably that it will be impossible to complete works within the figures for which licences have already been obtained. Will some pronouncement be made to the effect that these licences are now automatically subject to approved increase or will it be necessary for every builder to go through the process of applying for supplementary licences ? If this matter has not yet received consideration we urge that an early and sensible decision should be made and published.

RAILWAY RELICS AND RECORDS

THE railways have not been an unmixed blessing to this country; they have spoiled the appearance of many a town and city and created almost insoluble problems for town-planners with their viaducts, sprawling goods yards and sidings, to say nothing of the dirt and smoke distributed far and wide by the steam locomotive. Nevertheless, they retain a unique place in our affections, and it will not be only enthusiastic small boys who will be cast down when the railways (in urban areas at least) have been put underground and their monster steam engines replaced by electric traction. It may be taken for granted, therefore, that the Report to the British Transport Commission on the Preservation of Relics and Records, which was briefly referred to in a recent issue, will be read with interest by a large section of the public.

BRITTANY is studded with "Calvaires" or wayside shrines. This beautifully composed example is at Trestrignel, Perros-Guirec

The Report deals mainly with the preservation of representative locomotives and rolling stock, engineering models, prints and pictures, tickets and other printed matter, correspondence, minute books, legal documents, etc., relating to rail, road and inland waterway transport, docks, and railway catering which are in the possession of the Commission and their executives; but its chief interest for readers of this paper will be found in its references to historic buildings and allied subjects, for the age of canal and early railway construction was remarkable for its contribution to architecture and monumental engineering as well as to the lesser arts like furniture design, draughtsmanship and typography. The Report recommends that historic transport buildings and structures should be scheduled and labelled and that any work to be carried out on them should be subject to architectural supervision, and complete records kept.

Many valuable drawings of engineering and architectural subjects remain in the possession of the Railway Executive and the Docks and Inland Waterways Executive, and a number of them, some over 100 years old, are said to be of great technical interest and artistic merit. It is recommended that drawings of special importance, or liable to be exposed to exceptional wear or other risks, should be placed as soon as possible in the care of the Archivist, photographic copies being supplied for current use.

Perhaps the most important recommendation is that in due course a permanent British Transport Museum should be set up in a building which is itself an outstanding historic relic, the old terminus of the London and Southampton Railway at Nine Elms, erected in 1838 from the designs of Sir William Tite. Here it would be possible to display to excellent effect, not only old locomotives and rolling stock but also historic trams and buses, early stationary engines and other examples of transport engineering. A museum for smaller relics, like prints, pictures, company seals and typographical items, it is suggested, should be established in the Shareholders' Meeting Room at Euston, "an imposing room with notable transport associations." Existing museums in York and Scotland would be preserved and one created for Wales. No reference is made to Hardwick's great hall at Euston, perhaps the most impressive example of railway architecture in the country, but we may safely assume that this would be foremost on the list of works for careful preservation. What, by the way, has happened to the rebuilding scheme for Euston prepared before the war by Sir Percy Thomas? Euston as it is today is an extraordinary mixture of grandeur and squalor. It badly needs taking in hand, though times are certainly not propitious for any work of magnitude that can possibly be deferred.

It is gratifying to know that this Report, which incidentally suggests the safeguard of an Advisory Council to include representatives of outside bodies like the Public Record Office, the Institution of Locomotive Engineers and the R.I.B.A., has been accepted in principle by the British Transport Commission. Its full recommendations deserve and will repay the close study of all interested in the subject. Copies may be obtained, price 1s. 7d. including postage, from 55, Broadway, London, S.W.1.

"THE BUILDER" LOW-COST HOUSING COMPETITION

THE AWARD of the Assessors in the Competition for designs for a Terrace House, to be built at a cost not exceeding £1,000, is given on page 228. All the 322 designs submitted, together with a model of the winning design, will be on public exhibition in the Conference Hall, the County Hall, Westminster Bridge-road, S.E.1, from 1 p.m. on Monday afternoon next, February 19, until Saturday, February 24 (daily 10 a.m. to 7 p.m., Saturday 10 a.m. to 5 p.m.).

NOTES AND NEWS

The Tite Fallacy

THE DECISION to alter the design medium of the Tite Prize from the contemporary expression to that of the Italian Renaissance is both puzzling and disappointing. Puzzling in the sense that only two or three years ago the medium *was* Italian Renaissance, when it was thought fit to alter it to present-day design, disappointing that the change is probably due to the unsatisfactory standard of work achieved in the last few years by the competing students. Should the last point be true, it would seem to concern the R.I.B.A. Board of Education and the schools, yet the change back can hardly improve the situation; at best it will encourage students to design in a style of five centuries ago, totally unsuited to the modern world—in short, to design in a vacuum.

The study of Italian architecture we believe to be necessary to the cultural development of students of architecture, but the study should be limited to the work of the masters of the time; detailed study could occupy a lifetime, and the few weeks allotted to the Tite Prize is no more than sufficient for the student to absorb some part of a tremendous culture.

What is surely needed is a recasting of the Tite Prize programme; constructive research into the æsthetics of this great period should form the major aspect of the programme and a small portion of it could be devoted to design variations of a given theme, but not of a building.

Whose Choice?

MR. R. E. ENTHOVEN'S criticism of students' prize drawings at the R.I.B.A. recently was pungent and to the point, and he was witty to the point of acidity on the entries for the Tite Prize. Formal criticism of the choice of subjects set in these design prizes would seem to us overdue: three titles will serve to illustrate the point—the two most recent "Rome" subjects, "An Open-air Swimming-Pool and Restaurant," and "A College at Oxford or Cambridge," and this year's "Victory" subject—"A London Theatre."

The open-air pool, a subject somewhat unfitting to the climate of this country, lacks the true weight of the "Rome" standard, and the results proved that this weakness was felt by the competitors, who resorted to acres of patterned paving and planting to lessen the deficit. The results lacked quality and style. "The College at Oxford or Cambridge" resulted in a mixed bag of traditional and self-consciously contemporary designs. Why, one felt, should Oxford or Cambridge be brought into it at all? No solution was likely to be forthcoming to the basically insoluble problem of modern building in a traditional locality—at least, the only choices are to build in the contemporary manner or rehash the old; the former is common sense, the latter heresy. The introduction of Oxford or Cambridge, therefore, must prove a red herring of the first order as both places are heresy-ridden anyway, though in a highly pleasant way. Leeds or Durham would have been far more satisfactory choices of site, but we suspect that "Oxford or Cambridge" carried an appeal too strong to be resisted.

The "Victory" subject — "A London Theatre"—was basically 80 per cent. technical proficiency, and the difficult site increased its difficulties. This choice of subject was at opposite poles to the "Rome" swimming-pool—one was factual, technical and really requiring many years of hard study; the other sparse, lacking in dominant elements and decidedly cosmic in realisation. With the long history of prize subjects to choose from, both native and foreign, it is curious that the Prize Committee should set subjects with such obvious faults, either in type or in choice of locality. The naïvety of some of the Oxford or Cambridge colleges was embarrassing, and this, one could not help feeling, was partly due to an ill-conceived programme. Some of the open-air pools looked distinctly chilly for their purpose (as in actual fact they probably would be for most months of the year), and the theatres (the most successful programme of the lot!) appeared hamstrung with technical considerations which it seemed almost unfair to level at the designing student, who also had to produce a set of beautiful drawings in record time.

FLATS ON THE PRIORY GREEN ESTATE, FINSBURY. Shown above is a block of flats now under construction to designs by Messrs. Lubetkin and Skinner. They are part of a larger scheme

R.A. Summer Exhibition, 1951

THE ROYAL ACADEMY have announced the days for receiving works for the Summer Exhibition as follows:—water colours, pastels, miniatures, black and white drawings, colour prints, engravings and architectural drawings on Thursday, March 22; oil paintings on Saturday, March 24 and Tuesday, March 27; sculpture on Wednesday, March 28. Works will be received between 8 a.m. and 7 p.m. except Saturday, March 24, when they will be received between 8 a.m. and 3 p.m. It is emphasised that no more than three works may be sent by any one artist; no work will under any circumstances be received before or after these specified dates; all works must be delivered (unpacked) at the Burlington-gardens entrance and none will be received at the Piccadilly entrance. Labels and forms can be obtained from the Academy on and after February 26. Applications by letter must be addressed to "The Secretary, Royal Academy of Arts, Piccadilly, W.1," and be accompanied by a stamped addressed envelope. The exhibition opens on Saturday, May 5, and closes on Sunday, August 26.

First Glasgow City Architect

MR. A. G. JURY, F.R.I.B.A., the Director of Housing for the City, has been appointed by the Glasgow Corporation to the newly created £2,500 post of City Architect and Planning Officer.

Mr. Jury, who is 43, became Director of Housing in Glasgow in January, 1949. He was previously Principal Architect at Liverpool under Sir Lancelot Keay's administration. Entering the local government service in 1928, Mr. Jury has also held architectural appointments in Middlesbrough, Gravesend and Taunton. During the war he served as a major in the Royal Engineers.

Venetian Masters

THE VENETIAN school of painters must always rank among the world's best, and the exhibition of eighteenth-century paintings at the Whitechapel Art Gallery to mark fifty years of useful work contains a distinguished and comprehensive collection of these works.

The architectural painters are well represented, the King having lent twelve pictures, including the famous views of Venice and London by Canaletto. The profusion of Venetian paintings in England is largely due to the wealth of partakers of the "Grand Tour" in the eighteenth century, whose experience could rarely be called complete unless they arrived home with one or more examples of some old or contemporary master. Canaletto was, of course, a fashionable painter in his time, and the scenic canvas was considered the most logical choice of purchase, if only to serve the buyer as a reminder of halcyon youth in his old age.

Francesca Guardi, the other great Venetian scenic painter, is also well represented

at the Exhibition, and it is good to see a number of lesser known architectural painters represented, including Luca Carlevaris and Marieschi. There are also some fine sketches by Tiepolo, a gifted decorative painter, one of which is the famous Edinburgh study. Two more decorative painters, Sebastiano and Marco Ricci, both visited England—many say in the hope of obtaining the commission to decorate the dome of St. Paul's—and as a result bequeathed to us some charming work, exhibiting an impressive range of technical skill. To round off an outstandingly successful exhibition a small collection of printed books is on show, beautifully produced with decorative borders and covers.

Architect for Harlow New Town

HARLOW DEVELOPMENT CORPORATION is inviting applications for the post of Senior Architect (Grade II) at a salary of £1,000 by £50 to £1,200 per annum, in the department of the Architect/Planner, Mr. Frederick Gibberd, F.R.I.B.A., M.T.P.I. The latest date for applications is March 5. Full details will be found in this issue under Public Appointments.

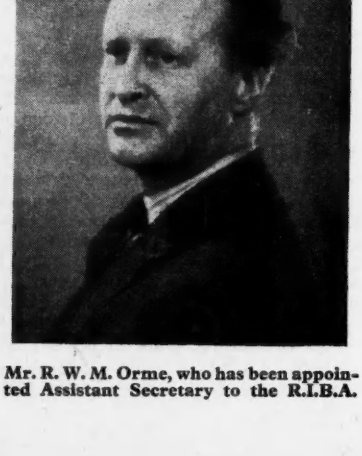
New R.I.B.A. Assistant Secretary

THE Royal Institute of British Architects have appointed Mr. Robert William Martin Orme, B.A., to the post of Assistant Secretary at the Royal Institute with responsibility for Public Relations. Mr. Orme was educated at Wellington College and at Jesus College, Cambridge, where he read modern languages.

From 1930, to the outbreak of war, Mr. Orme was on the London Stock Exchange, being a member from 1935 to 1940. He enlisted in the Territorial Army at the beginning of 1940, and was commissioned into the Intelligence Corps in 1942, and subsequently served overseas in the Mediterranean theatre as a qualified interpreter in Italian and French. He also speaks German.

I.L.O. Building Committee

THE THIRD SESSION of the Building, Civil Engineering and Public Works Committee of the I.L.O., which opened in Geneva on February 12, is to consider the problems of welfare and seasonal unemployment in the construction industry, and the most effective means of reducing its extent, and recent events and developments in the industry. The I.L.O. Industrial Committees may include two representatives of governments, employers and workers respectively, from countries most directly concerned with the particular industries.



Mr. R. W. M. Orme, who has been appointed Assistant Secretary to the R.I.B.A.

London Building Acts Appeal

A TRIBUNAL OF APPEAL under the London Building Acts, 1930 to 1939, will sit at the County Hall, Westminster Bridge, S.E.1, on February 22 at 11 a.m. to hear Appeal No. 289, re No. 16, St. Helen's-place, Bishopsgate, E.C.2. Appellants: Priest-in-Charge, Churchwardens, and Council of the Church of St. Ethelburga-the-Virgin. Respondents: London County Council and the City of London Real Property Company, Ltd.

Professional Announcements

MR. RICHARD HENNIKER, F.R.I.B.A., who has been practising temporarily from No. 14A, Berkeley-mews, Seymour-street, Portman-square, has now taken permanent premises at No. 14, Berkeley-mews. Tel. No. remains the same at Welbeck 0405. He will be pleased to receive trade catalogues.

The firm of JOHN G. WOODNUTT AND PARTNERS, 34, Victoria-street, S.W.1, having been dissolved, MR. JOHN G. WOODNUTT, F.F.S.(Eng.) (Quant.), F.I.Q.S., has opened offices at 119, Ewart-road, Forest Hill, S.E.23, and will be pleased to receive catalogues, etc.

As from February 26, the telephone number of Messrs. DAVIS, BELFIELD AND EVEREST, Chartered Quantity Surveyors, 9, Ashley-place, S.W.1, will be changed to Tate Gallery 0521/5.

COMING EVENTS

Friday, February 16

MIDLAND INDUSTRIAL DESIGNERS' ASSOCIATION.—"Festival of Britain," by Mr. James Holland. Imperial Hotel, Temple-street, Birmingham. 7.15 p.m.

Monday, February 19

R.I.C.S.—"The Problems of Development Plans," by Mr. E. H. Doubleday, F.R.I.C.S., M.T.P.I., 12, Great George-street, S.W.1. 5.30 p.m.

ROYAL SOCIETY OF ARTS.—"Training for Industry and the Professions," by Sir Harold Howitt, R.S.A., John Adam-street, Adelphi, W.C.2. 6 p.m.

FEDERATION OF PAINTING CONTRACTORS.—Annual dinner and dance, at which the Minister of Works, The Rt. Hon. R. R. Stokes, M.C., M.P., will reply to the toast of "His Majesty's Government," Dorchester Hotel, Park-lane, London, W.1. 6.45 p.m.

Tuesday, February 20

R.I.B.A.—"The United Nations Building, New York," by Mr. Wallace K. Harrison, 66, Portland-place, W.1. 6 p.m.

Wednesday, February 21

ROYAL SOCIETY OF ARTS.—"Air Photography and Archaeology," by Dr. J. K. S. St. Joseph, R.S.A., John Adam-street, Adelphi, W.C.2. 2.30 p.m.

VICTORIA AND ALBERT MUSEUM.—"Elizabethan Art," by Mr. Graham Reynolds. V. and A. Museum, South Kensington, S.W.7. 6.15 p.m.

Thursday, February 22

R.I.B.A.—Architecture and Transport Exhibition, 66, Portland-place, W.1. Weekdays 10 a.m. to 7 p.m., Saturdays 10 a.m. to 5 p.m. Continuing until March 22.

INSTITUTION OF STRUCTURAL ENGINEERS.—"Building on Fill with Special Reference to the Settlement of a Large Factory," by Dr. G. G. Meyerhof, 11, Upper Belgrave-street, S.W.1. 6 p.m.

Friday, February 23

BIRMINGHAM AND FIVE COUNTIES A.A.—"Architecture in England during the Second Half of the Nineteenth Century," by Professor A. E. Richardson, R.A., M.A., F.R.I.B.A. Birmingham Art Gallery. 6.15 p.m.

L.M.B.A. (NORTH WESTERN AREA).—Luncheon meeting at which Mr. D. F. Cox (president) and Mr. G. H. A. Hughes (director) will be present. Gayton Rooms, Station-road, Harrow. 12.30 p.m.

Wednesday, February 28.

ARCHITECTURAL ASSOCIATION.—Ordinary general meeting followed by debate "That in the opinion of this House the A.A. is a defunct and apathetic body and has yet to justify its existence," 36, Bedford-square, W.C.1. 8 p.m.

FROM "THE BUILDER" OF 1851

Saturday, February 15, 1851

PROPERTY INSURED IN LONDON.—By a recent return from the various fire insurance companies of the amount of property in the Metropolis insured by them, we find it exceeds the enormous amount of one hundred and sixteen millions sterling.

COMPETITION NEWS

"The Builder" Low-Cost Housing Competition

THE assessors in this competition, Sir Lancelot Keay, K.B.E., P.-P.R.I.B.A., Mr. Arthur Kenyon, C.B.E., F.R.I.B.A., M.T.P.I., and Sir Stephen Tallents, K.C.M.G., C.B.E., Hon. A.R.I.B.A. (with Mr. E. H. Palmer, F.R.I.C.S, as quantity surveyor referee) made their award to the promoters on February 7.

Upon opening the sealed envelopes it was found that the authors of the designs placed in order by the assessors are as follows:—

First (£250 prize) No. 106: J. L. Womersley, A.R.I.B.A., A.M.T.P.I., and G. Hopkinson, B.Arch., A.R.I.B.A., A.M.T.P.I., 28, Kingsley-road, Northampton (Borough Architect and Deputy Borough Architect respectively to Northampton County Borough).

Second (£100 prize) No. 76: Edward Narracott and Associates, A. and L.R.I.B.A,. 48, Torwood-street, Torquay, Devon.

Third (£75 prize) No. 166: H. Underhill Diplock, 49, Sheen Park, Richmond, Surrey.

Hon. mention and a prize of £25 to each of the following (names in alphabetical order):—

(a) No. 260: A. G. Goodair, A.R.I.B.A., Albemarle House, Osborne-road, Southsea, Hants.

(b) No. 184: Johnson and Crabtree, FF.R.I.B.A., 8, Robert Adam-street, London, W.1.

(c) No. 97: Howard N. Michell, A.R.I.B.A., and T. Snow, 23, Burnell-gardens, Stanmore, Middlesex.

The following three designs (names in alphabetical order) are highly commended:

(a) No. 179: Norman R. Minter, 41, Russell-square, London, W.C.1.

(b) No. 163: John W. Poltock, A.R.I.B.A,. Gable End, Loose, near Maidstone, Kent.

(c) No. 6: Hon. R. de Yarburgh-Bateson, M.A., A.R.I.B.A., A.A.Dipl., Great Hormead Bury, Buntingford, Herts.

The whole of the 322 designs submitted and a model of the winning design will be on view at the Conference Hall, County Hall, S.E.1 (by kind permission of the London County Council), from 1 p.m. on Monday, February 19, to Saturday, February 24, between the hours of 10 a.m. to 7 p.m. (Saturday, 10 a.m. to 5). The Conference Hall is reached from the north entrance, (Belvedere-road). Admission is free.

Nairobi Civic Building

THE DESIGNS placed first, second and third in this competition (assessed by Professor L. W. Thornton White, F.R.I.B.A.) are illustrated in this issue.

Coventry Cathedral

THE CLOSING DATE for receipt of drawings in connection with the Coventry Cathedral competition has been extended from July 2 to July 20 next. Owing to the large number of queries received concerning the competition, the Cathedral Reconstruction Committee have issued a reply to questions in booklet form, which has been forwarded to all competitors.

CORRESPONDENCE

Fuel Saving Policy

TO THE EDITOR OF *The Builder*.

SIR,—I was interested to read in your issue of Feb. 2 that the Ministry of Local Government and Planning proposes, through local authorities, to insist that private householders building under licence shall only be permitted to instal certain types of open fires which are alleged to be fuel-saving. Could anything be more fatuous, and what total saving would be achieved?

Let us suppose that I do not happen to like any of the approved fires. However, to obtain a licence and to save trouble, I say that I propose to use one of these splendid affairs, but I do not do anything of the sort and instal another type—what precisely is the authority going to do about it? The answer is simple—nothing.

It would be more to the point if other Ministries concerned with building were to take action to reduce fuel consumption by putting a ban upon the excessive areas of window glazing now so popular. It is commonplace that additional heating is necessitated by an excessive provision of glazing.

Schools are probably the chief offenders. One wall of a classroom nowadays must be almost entirely glass; consequently heating must be increased, and in connection with school glazing it was interesting to note that it was soon discovered that glare resulted from all this glazing. Roofs were accordingly projected to stop some of this, but the height of absurdity was reached when recently I read the specification for a school being built by one of the largest county councils, in which it was specified that the ceilings were to be finished with a light purple tint.

Is it too much to expect that one day someone will think of reducing the glazing to a more reasonable proportion, and thus save heating, reduce glare and safeguard one's eyesight?

It seems incredible that our older Public Schools can turn out boys with quite a fair education and in good health under conditions of fenestration that our pundits must regard as deplorable.

It is of interest to remember that, coincident with our fashionable over-glazed window areas, the Government is having a survey made for air raid shelters. How jolly to sit behind a wall of glass awaiting the possible arrival of the future edition of the "doodle bug." Or can it be that all these glasshouses will be evacuated in the event of war?

I seem to remember that the new United Nations building in New York is mainly faced with glass. The first atomic or other bomb that arrived there would soon put paid to the use of that building.

It may be said that the present trend of design is in accordance with the existing condition of the world, which is more than a little mad.

A little over 100 years since, the modern machine was developed that was to save man's labour and give him more leisure, but nowadays we cannot find enough men to make the machines. I am reminded of a lady client for whom I built a house between the wars. She collected all the labour-saving gadgets she could, but the trouble was that she could not keep maids —they complained that it took too long to keep the labour-saving appliances clean.

Architecture and building is, after all, a sober science, and one would like to see architects try to lead the way to sane thinking and not meekly follow architectural clichés and stunts.

ROBERT G. MUIR, F.R.I.B.A.
27, Old Gloucester-street,
Queen-square, W.C.1.

"The Quantity Surveyors' Dilemma"

TO THE EDITOR OF *The Builder*.

SIR,—The suggestion in your leading article of February 2, that the specification should again be part of the R.I.B.A. contract, and that the architect should write it, makes quantity surveyors chuckle! My experience before the war was that, except in the case of most public authorities, who did prepare a proper specification, the quantity surveyor *always* prepared the contract specification for the architect—and for nothing! A dilemma indeed!

Builders' estimators prefer, I think, that all information affecting price should be in the one document. Constant cross-reference between two documents is a nuisance to the estimator, and delays him at a time when he is hard pressed. The conventional pre-war specification involved a lot of repetition of matter already in the bill of quantities (in fact, it was often written by the quantity surveyor using the proof of the bill). The only information necessary, besides that essential for pricing the bill of quantities, is the location of the various items, and any other instructions which do not affect price. This information is not required until building work starts, and, as it does not affect price, it is of minor importance whether it is in a contract document or not.

ARTHUR J. WILLIS.

London.

TO THE EDITOR OF *The Builder*.

SIR,—It is difficult for the ordinary reader to see why Mr. Thackray's remarks, reported in your issue of August 22 last, should be whipped up into your leading article of February 2. At the worst Mr. Thackray was guilty of indulging in hyperbole in his use of the metaphor of raising the voice. You report him as saying "we should all undoubtedly lend our wholehearted *support* . . . we know it is *difficult* for the quantity surveyor. . . ." This makes it clear that he realised that quantity surveyors are *not* "briefed to the cause of initiating protest or applying veto."

You, Sir, say "some few quantity surveyors, it may be, have a personal influence . . ." Perhaps the following might suggest that your indulgence is in meiosis:—

1. Young architects, both private practitioners and assistants, turn to older surveyors for advice on those aspects of their work on which they think the quantity surveyor can help them more than their fellow-architects. If he can impress on them the importance of fully worked-out drawings, surely this is to the advantage of the industry?

2. There are certain "architects" (possibly you, Sir, have not met them) who not only turn to the quantity surveyor for advice but lean on him for guidance and even instruction in their job. The type I mean is, for instance, one (with respectable letters after his name) who, when asked if he would like half-round or bonnet hip tiles, replied: "What *is* a bonnet hip tile?" Or they just may be skirmishers on the horizon of the architectural world, experts in some other art or science, who make architecture an occasional adjunct to their work.

3. Then there is the well-trained architect who is so steeped in the artistic side that he has no inclination, patience or even ability for the practical and business side.

4. How far the quantity surveyor influences the normal architect-client depends very largely on the personality of each. But the relationship should be such, and usually is, that friendly suggestions are taken in the spirit in which they are given and seriously considered.

5. With public authorities, complaint as to completeness of drawings is not in my experience common. Their work has mostly taken a long time in developing. They have not to resist the inclination which the private architect may feel to reduce his work to a minimum, until he knows that the contract will proceed. Their drawings are, therefore, fully detailed. But they sometimes undo their own good work by asking for quantities to be prepared in a ridiculously, or even impossibly, short time, trying to catch up on the planned programme and making the quantity surveyor the scapegoat for delays in the earlier stages. He must then choose between scamping his job, ignoring the time factor or refusing. There is no other alternative. In popular language: "What would you do, chum?" Another dilemma!

I should hate to hurt the feelings of my good friends the skirmishing "architects," who may think that the cap fits, so must ask to remain anonymous. I enclose my card.

CHARTERED QUANTITY SURVEYOR
(of nearly 30 years' standing).

TO THE EDITOR OF *The Builder*.

SIR,—Your leader—"The Quantity Surveyors' Dilemma"—in the issue of February 2 is both timely and sane, and is worthy of reprinting and distributing to every practising architect in the United Kingdom.

In 1947 I was persuaded to write an article in the West Yorkshire Society of Architects' Journal under the title of "You and the Quantity Surveyor." I did not pull my punches and pointed out the necessity for treating the pre-contract period not just as a period of some importance, but as the most important period on any building project.

The result of my rashness in writing "at" my professional colleagues was interesting; a commendatory notice in one of the national architectural publications, applause from my fellow quantity surveyors and much good-natured chaff from my architect friends. The most important result was that a few architects sat up and took notice and did supply me thereafter with the details, schedules of doors, windows and finishings, etc., for which I asked; but a full specification never came my way (the only exception being the Ministry of Works).

Since then there has been no further improvement in production of pre-contract particulars, in fact in some quarters there has been a deterioration. The trouble would appear to be that although most architects are fully alive to their responsibilities the pace is such that they cannot

provide the necessary documents, etc., without themselves getting into trouble with clients who are always urging them forward to "get out to tender." The result is that for every hour "saved" in the pre-contract period, two hours are lost later on.

In my opinion there will be no easy solution, for it is far from easy to tell the client (whether a private person, company or corporate body) that by going at a seemingly slower pace at the beginning you will eventually save time. The lead must come from the highest authority, not so much in re-educating the architects as educating the clients.

I feel that this problem is somewhat related to the "streamlining" of quantities so excellently presented in Mr. Stanley Hookway's recent articles [*The Builder*, January 5 and 12, 1951]. The prime purpose of "streamlining" should not be to speed up the preparation of the bills of quantities, but rather that any saving of time by "streamlining" should be spent on the more important processes, thus relieving that pressure which is all too conducive to inaccuracy. It is hoped that the Quantity Surveyors' Committee of the Royal Institution of Chartered Surveyors will set up the necessary machinery for the whole of this important question to be examined by the most able quantity surveyors of the day and thus to sift the wheat from the chaff. The practising quantity surveyor on his part should be willing to forgo that innate conservatism towards new methods, provided always that any new methods are introduced to promote accuracy and quality rather than serving the fetish of speed. True efficiency must be a correct relationship between accuracy and speed, and not speed alone.

J. R. MILLER, F.R.I.C.S.

13, Queen-square, Leeds, 2.

Streamlining the Quantities

TO THE EDITOR OF *The Builder*.

SIR,—I have read with considerable interest the articles by Mr. Forster and Mr. Hookway on the possibility of streamlining quantities. Let me say at the outset that I largely agree with both of them. I should like to add a few points which I think are relevant to this subject.

First, we must keep clearly in mind the functions which quantities are intended to fulfil. I suggest that in this country quantities serve two functions: (i) They provide a document which gives the estimators of all contractors who are tendering enough information on which to prepare accurate tenders without unnecessary multiplication of work by estimators; (ii) they provide an instrument which enables the contract price to be adjusted for reasonable variations without difficulty or dispute.

Americans, it seems, do not want an instrument for function (ii). On the contrary, they prefer not to have one since it encourages the architect not to bother to complete his planning before building starts and it encourages both the architect and the client to change their minds during construction. While I have some sympathy with this point of view, I feel that it is not for quantity surveyors to say whether quantities should be designed for this purpose. We should confine ourselves to pointing out the advantages and disadvantages.

Reverting to function (i), I whole-heartedly endorse Mr. Hookway's plea for abbreviation of both words and descriptions, although I agree that this is a relatively superficial change. I suggest the B.S.I. might help with a B.S. Code of Practice for abbreviating words. An appendix to the S.M.M. could then give defined meanings of standard abbreviated descriptions.

To help in this abbreviation of description I suggest that the specification should be incorpoated at the beginning of the bills. (This is quite usual in bills prepared by civil engineers.) A specification consists of two parts: first, a description of the quality of the materials and workmanship; and secondly, instructions as to where particular items are to be used in the building. Normally these two parts are inextricably mingled. They could, however, easily be separated, part 1 becoming the main body of the specification which would be incorporated complete in the bill, and part 2 consisting of schedules. It would not be necessary to incorporate part 2 with the bills, though it would do no harm to do so.

Bill items would then contain no more than is necessary to identify the relevant items in the specification. For example:—

1. Cube common brickwork in cement.
2. Cube common brickwork in compo.
3. Cube stock brickwork in cement.

The specification would say what "common," "cement," "compo," "stock," etc., meant, and give all other relevant details about the building of brickwork.

In regard to streamlining the S.M.M., I agree with Mr. Hookway that it is contractors who matter, and a quantity surveyor can only offer suggestions. My suggestion is that the S.M.M. should be revised by measuring only those items which a contractor can cost on the site. For example, such labours as plumbing angles in brickwork, leaving chases in brickwork, and forming rough cut squints and birds mouths, cannot be independently time-studied and costed (or can they?). Surely, therefore, it is better to include such labours in the rate for bulk brickwork and let the estimator judge, after examining the drawings, what allowance he should make in that rate for those labours in each case. I feel that the only basis of accurate estimating can be accurate costing of previous jobs. The overall cost of brickwork on various jobs can easily be costed, and estimators can collect statistics for various types of building. Such a revision would cut out many items which are now measured and would amalgamate into one item others now kept separate (e.g., timber in roofs as cited by Mr. Hookway).

To assist the estimator in assessing rates he should always be furnished with a complete set of working drawings. If these were folded in accordance with B.S. Drawing Office Practice they could in many jobs be bound at the back of the bills. In larger jobs they could be bound separately in one or more volumes.

A refinement of this idea would be to use photostat copies of the drawings from which the quantity surveyor has actually taken off, showing all his notes and corrections. No doubt, this would create difficulties on large jobs where several takers-off have worked from several sets of drawings, but such difficulties would not be insurmountable.

In conclusion, I wish to endorse two points emphasised by Mr. Hookway. First, we cannot tolerate inaccurate measurement, since one cannot control the degree of inaccuracy. By all means let us reduce the number of measurements necessary, if we can, but let those measurements we do make be made properly. Secondly, let the specification be—to use mid-twentieth century vernacular—"rehabilitated." Let the architect write it, let him do so before the quantity surveyor starts taking-off, and let it be once again a contract document. Much of the verbosity of present-day bills springs from the fact that they have to be both quantities and specification for the purpose of the contract, and all because we cannot rely on the architect producing a proper specification.

D. D. YEOMAN, A.R.I.C.S.

Beaufort House,
Gravel-lane, E.1.

Edinburgh Medical School Competition

TO THE EDITOR OF *The Builder*.

SIR,—After taking the trouble to examine the site for the above competition, I find it most surprising to see that so many competitors (including some of those premiated) seemed unaware that Meadow-walk was not a vehicular road, and used it for access of vehicles. This was a most fundamental point in the whole programme and had a major influence on the plan, so that in future it seems that visiting the site is worse than useless.

COMPETITOR.

Pre-planning

TO THE EDITOR OF *The Builder*.

SIR,—Whether or not the popular term "pre-planning" effectively describes the intelligent preparation of a building operation, it is a safe assumption that pre-planning has now become an overriding necessity. In the interests of higher productivity is it not high time the attitude of mind altered which frequently comes to light in a tender clause such as this: "The contractor shall upon the signing of the contract immediately commence the work, etc."?

This clause would be better substituted by something like this: "Under no circumstances shall the contractor commence the works before a period of —— weeks has elapsed after the date of signing the contract. The contractor shall during this period be allowed full access to the site for the purpose of storing materials, taking dimensions, and instructing his workmen, and shall during this period diligently prepare for the execution of the works." Whilst admittedly the practice inferred in such a clause has for long been pursued by many contractors, it is highly desirable that all sense of possible penalty be removed from the minds of those who would marshal their forces before launching them.

L. R. HOLBROOK.

24, Dornton-road,
South Croydon, Surrey.

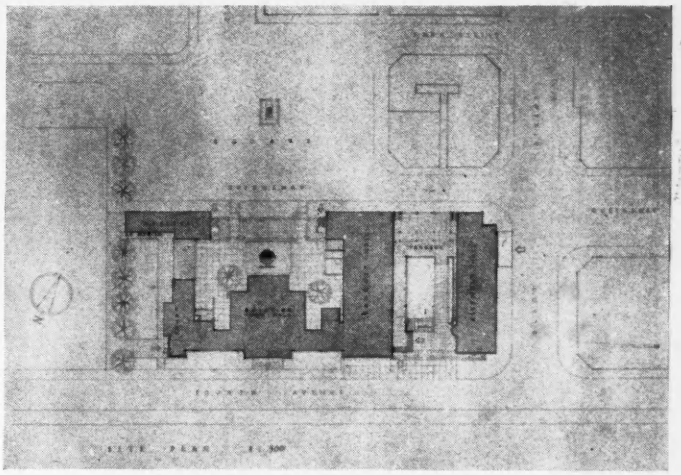
Advantages of Granite Walls

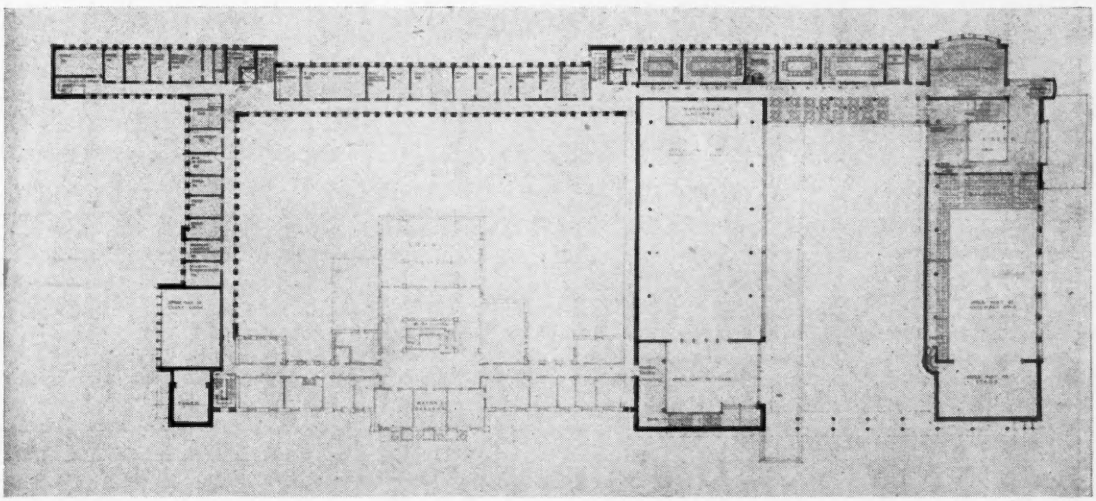
"THE nicest house in New Hampshire . . . natural field stone, hand hewn beams, wrought iron fixtures; fully electrified, steam heat, deep freeze, three-foot granite walls (atom-bomb proof, hydrogen-bomb resistant) . . ." — Advertisement from an American House Property Journal.

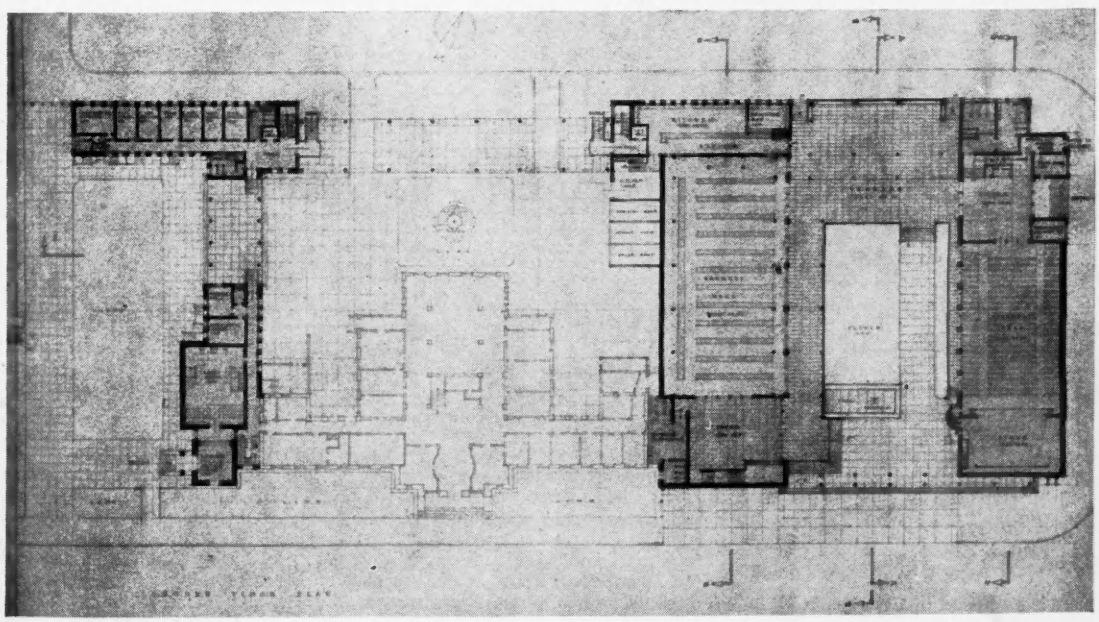
COMPETITION
FOR NEW CITY HALLS AND OFFICES, NAIROBI

THE WINNING DESIGNS

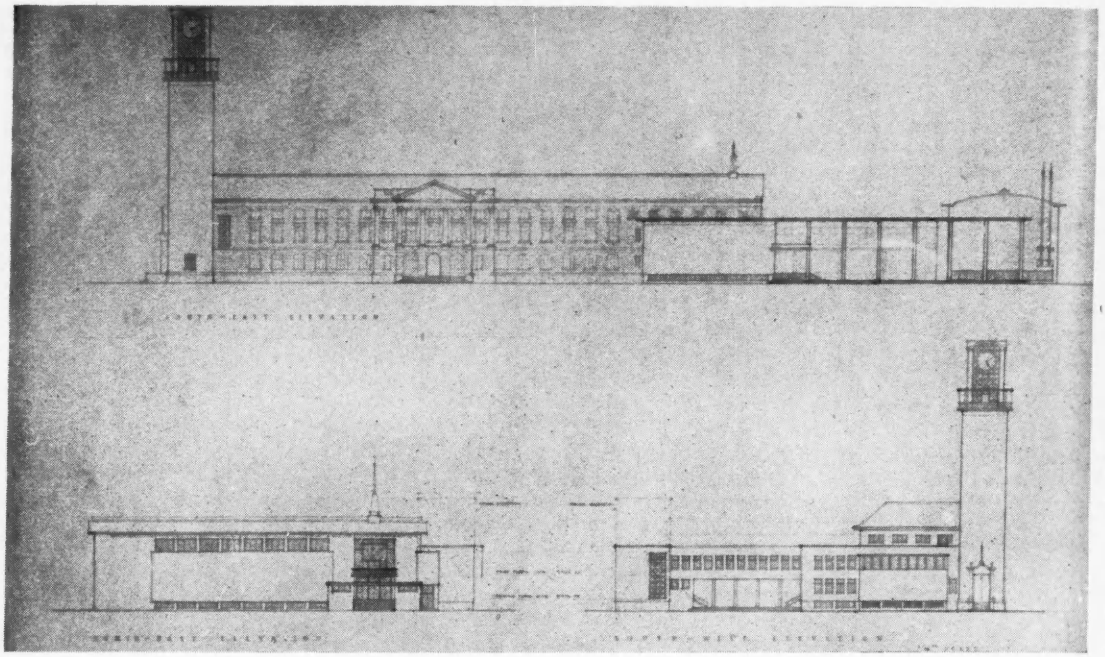
IN connection with the architectural competition for the new city halls and offices at Nairobi, Kenya, Prof. L. W. Thornton White, F.R.I.B.A., the assessor (as announced in our issue for January 19) has awarded the first premium of £550 to Messrs. C. A. Levick, P. H. Connell and L. T. Croft, of Durban, South Africa. The second premium of £450 has been awarded to Mr. A. Ball, A.R.I.B.A., of 20, Island-place, Clapham, London, S.W.4, and the third premium of £250 to Messrs. R. S.

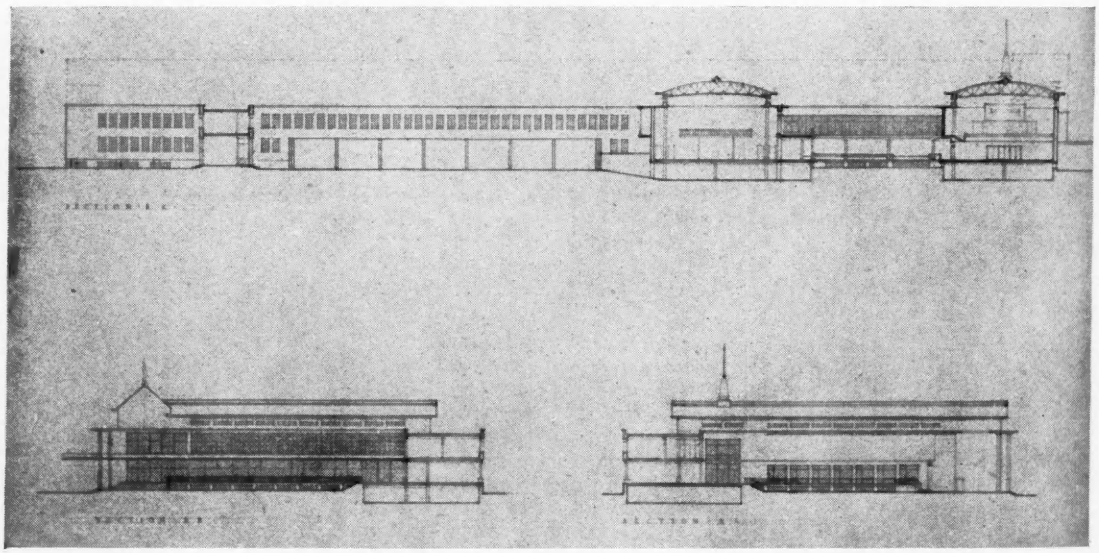






DESIGN PLACED FIRST: C. A. LEVICK, P. H. CONNELL AND L. T. CROFT, ARCHITECTS





DESIGN PLACED FIRST: C. A. LEVICK, P. H. CONNELL AND L. T. CROFT, ARCHITECTS

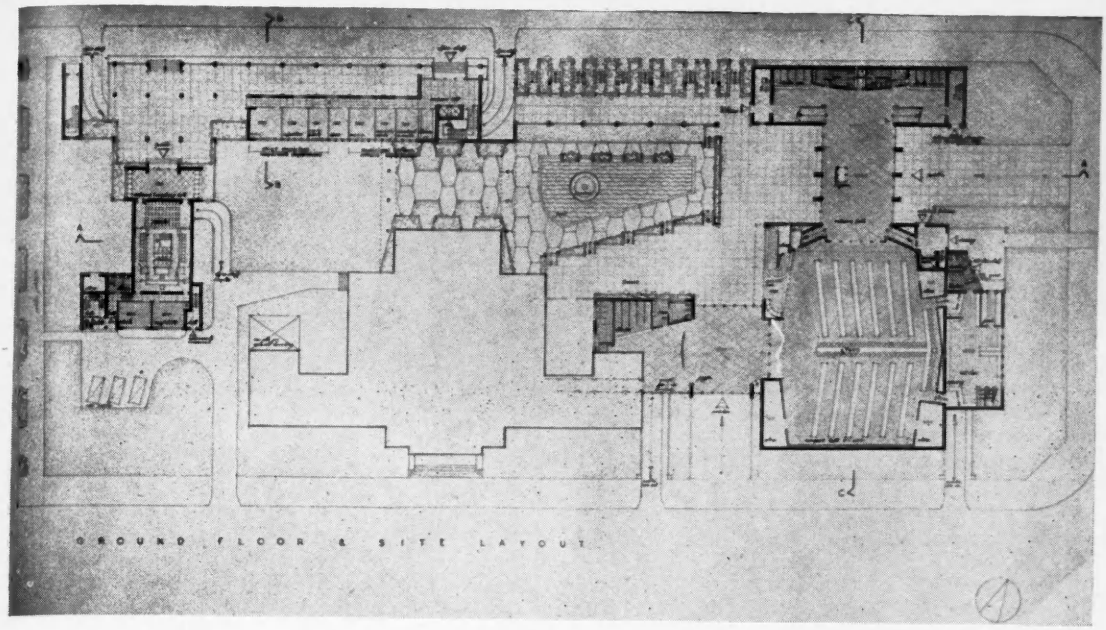
Cobb, H. D. Archer and H. Q. Scammell, of Nairobi.

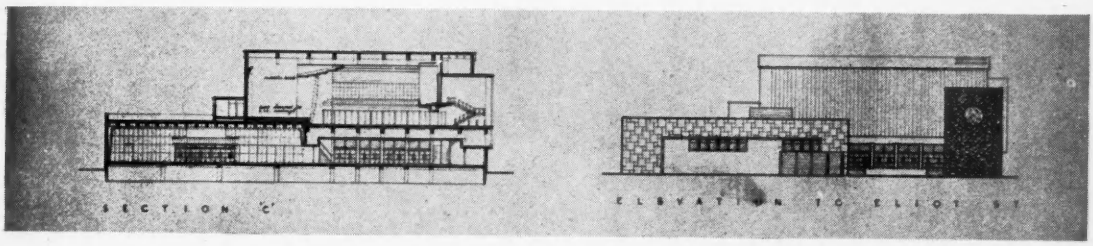
Highly commended designs were by R. Dickinson, Khartoum, and S. Rowland Pierce, London ; commended — Eugene J. D'Anos, Cape Town ; Ferdinand Silvan, Sydney, Australia ; H. J. Cullerne Pratt and Ronald P. Gray, AA.R.I.B.A., of London ; and J. O. Plunket O'Callaghan, A.R.I.B.A., of London. Fifty-nine designs were received.

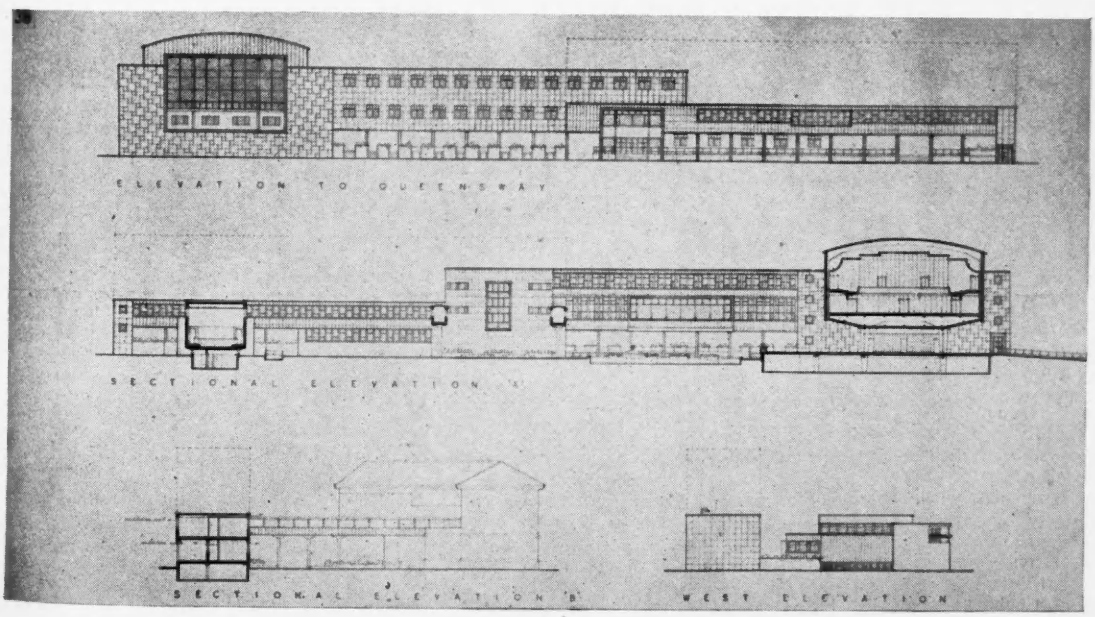
In his report to the Nairobi City Council, the Assessor states that the first design not only solves all the problems involved in a simple, straightforward and imaginative manner, but it takes pains to integrate the present Town Hall and the new work, and in doing so corrects some of the aesthetic faults of the present building, without adding a single room having the present unsatisfactory fenestration or proportion.

The scheme places the banquet hall immediately to the east of the present building, with the assembly hall on the Eliot-street frontage. Between these two main halls is a garden and system of partly covered terraces open both to Queensway and Fourth-avenue, controlled at both ends or left open as a public amenity at will. The covered terrace forms a spacious and " tropical " setting for the congregation of diners for refreshment before a banquet, which some competitors ignored. The two halls are well proportioned, and though similar in mass, through subtle contrasts in window system, balconies and supporting columns, they are quite different in character. Both are well designed acoustically, and disconnected structurally to avoid noise nuisance from one to the other.

The new municipal offices are arranged on two floors, and those rooms which are to be temporarily used by the Legislative Council are so placed





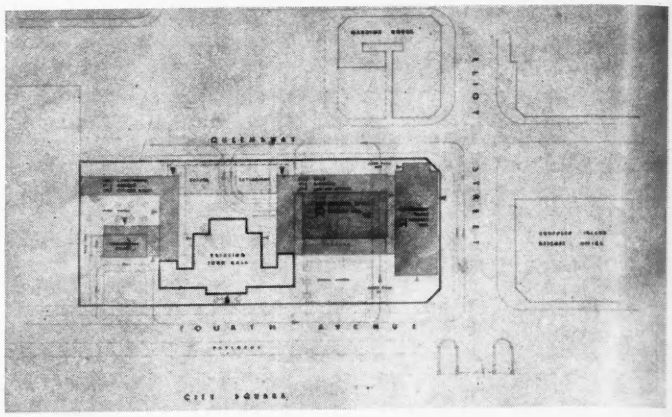


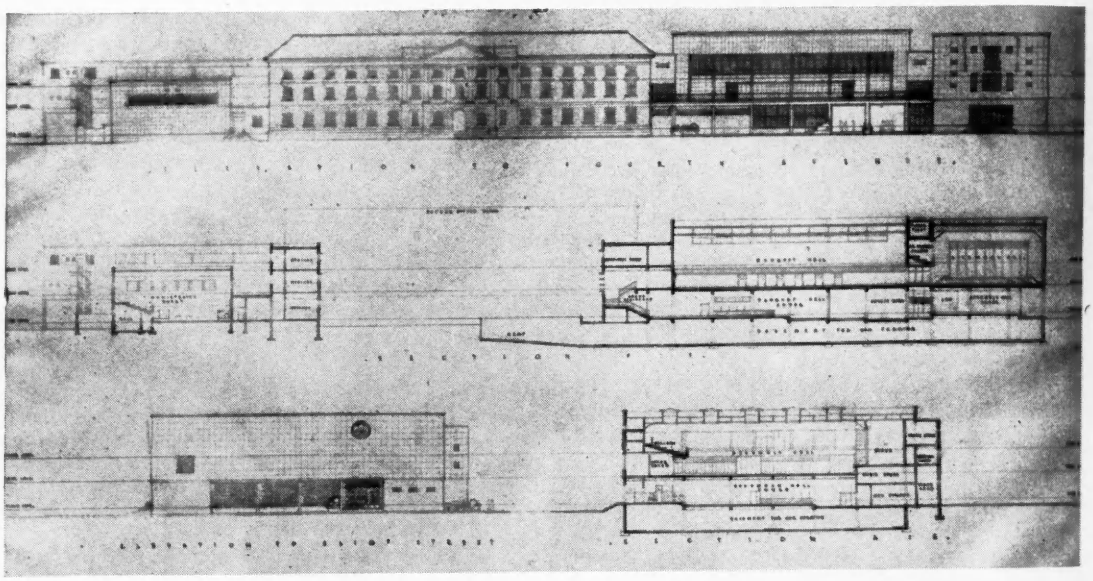
DESIGN PLACED SECOND: By A. BALL, A.R.I.B.A.

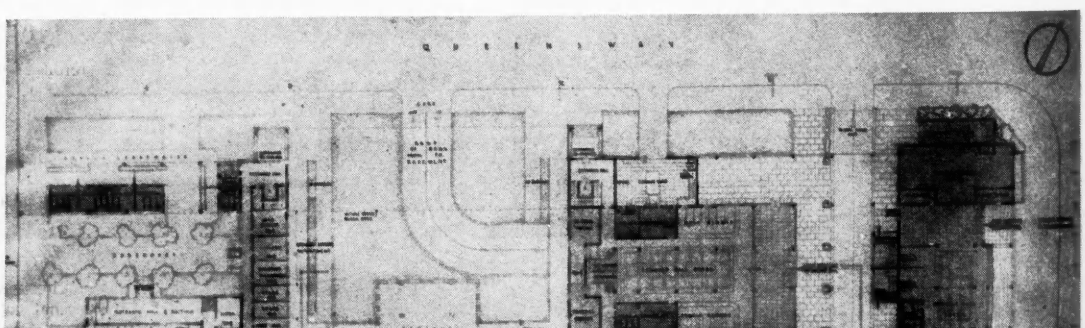
that they form a natural extension to the offices, the Committee Rooms being at the same level as, and convenient to, the present Council Chamber and Committee Room.

The Court garden is linked through a colonnade to a formal garden at the back of the present building, and is in turn connected through an open colonnade to Queensway. The offices above this colonnade mask the present somewhat untidy back elevation of the Town Hall, at the same time admitting plenty of light and air throughout the interior of the site, and introducing a very pleasant open character to the scheme.

The new building is estimated to cost £195,000.







DESIGN PLACED THIRD: By R. S. COBB, H. D. ARCHER AND H. Q. SCAMMELL

FOUR DWELLINGS SCHOOL, QUINTON: J. B. Surman and Partners, F. and A.R.I.B.A., Architects

CITY OF BIRMINGHAM EDUCATION COMMITTEE

Some Notes on the School Building Programme

ALEX. STEELE, Dip.Arch.(Edin.), A.R.I.B.A., ARCHITECT TO COMMITTEE

THE demand for school places in Birmingham is probably unique, as the effects of the increase in the birthrate were felt at a very early date. The school building programme was initiated by the late W. T. Benslyn, A.R.C.A., F.R.I.B.A., architect to the Education Committee, who vigorously opposed the erection of schools in Ministry of Works hutting. Experiments showed that building of light construction, designed in accordance with the Building Regulations, could be completed as quickly and economically as the sub-standard hutting.

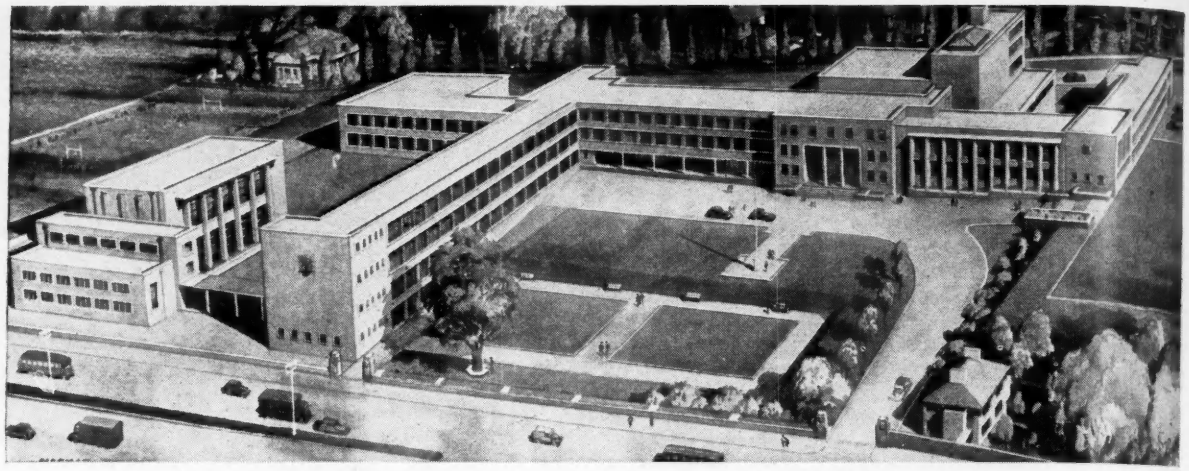
Since the first scheme was commenced in 1946, 12 schools have been completed and alterations or additions made to 59 educational buildings, the number of school places provided being about 9,500 primary and 1,000 secondary; it is estimated that the present programme will produce a further 12,112 primary places and 9,650 secondary places by the end of 1954.

The type of construction has generally been semi-traditional in character and some prefabricated units have been introduced. The far-sighted policy of the Education Committee in permitting materials to be ordered in advance greatly facilitated the delivery of materials and of steel in particular. At the present time the total value of work under construction is £2,800,000, of which £980,000 has been undertaken in the Architect's Branch, the remaining £1,820,000 being under the control of private architects commissioned by the Education Committee; for the Education Committee have not departed from their long-standing practice of utilising the services of architects in private practice, and at the present time some 27 firms of architects are commissioned for educational buildings.

Liaison with the commissioned architects is maintained by three District Architects, namely, Mr. D. K. Graham-Cumming, Dip. Arch., A.R.I.B.A., T.P.Dip., D.P.A., Mr. J. T. Willcox, A.R.I.B.A., and Mr. H. M. Wright, A.R.I.B.A., under the direction of the Architect to the Committee, Mr. Alex. Steele, Dip. Arch. (Edin.), A.R.I.B.A., and the Deputy Architect, Mr. N. Wigzell, A.R.I.B.A. The drawing office of the Architect's Branch is supervised by Mr. C. L. Bugler, Dip.Arch., A.R.I.B.A. The value of the schemes in the 1950 programme not yet commenced, along with the 1951 programme already approved by the Ministry of Education, increases the total value of the work in hand by £3,200,000, of which £2,400,000 is being undertaken by commissioned architects. The totals for the three programmes are therefore: work in the Architect's Branch £1,780,000; and work undertaken by commissioned architects £4,220,000.

The incidence of the reduction in the cost in school building imposed by national conditions has, in common with other authorities, necessitated the adoption of new plan types, and the illustrations clearly show the changes which are taking place. It will be noted that in the case of Brookfields Primary School the plan form is similar to that subsequently recommended by the Ministry of Education in regard to the utilisation of corridor space for stores and cloaks.

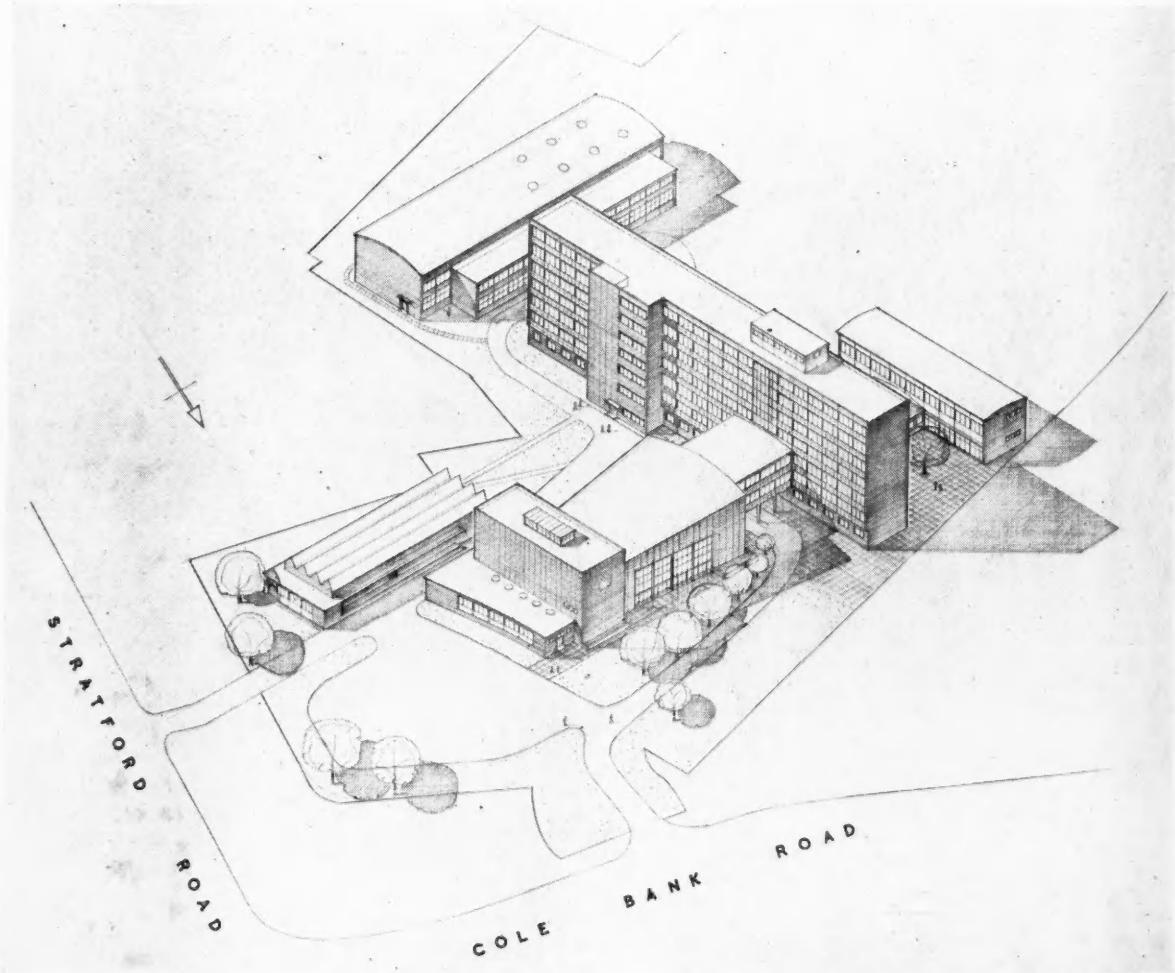
The built-up nature of the city of Birmingham creates a difficult problem, and school sites are generally hilly or on those portions of land which cannot be developed economically by private enterprise or for housing. The use of multi-storey buildings is necessary, and following negotiations with the Teachers' Association the Committee decided that infants' schools must be of one storey; that junior schools should not exceed two storeys except where site conditions were extremely restricted;



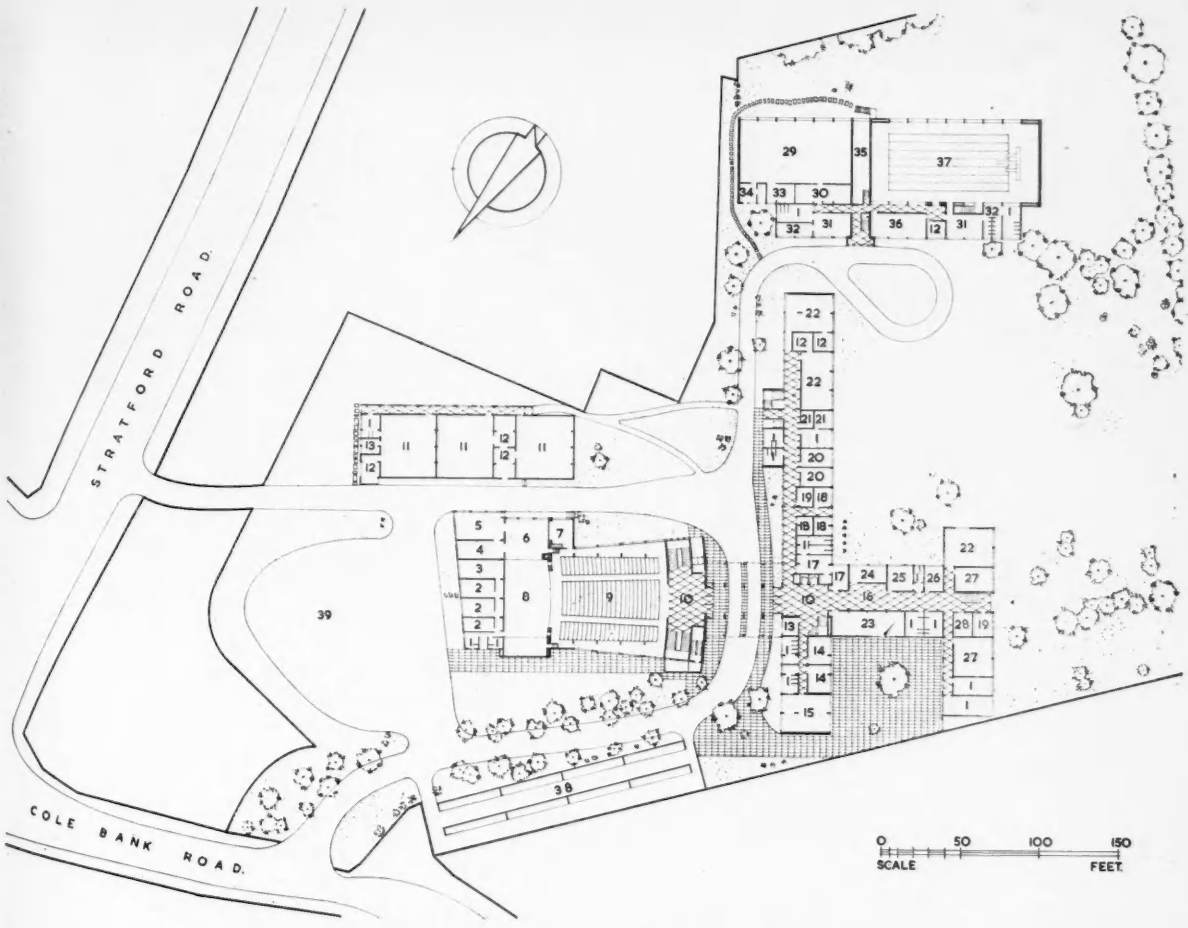
QUEENSBRIDGE-ROAD FOUR-FORM SECONDARY MODERN MIXED SCHOOL:
Martin and Martin and W. H. Ward, F. and A.R.I.B.A., Architects

and that secondary schools should not exceed three storeys except in extreme cases: no limitation has, however, been imposed on Branch Technical Colleges, and schemes of four to seven storeys are in course of construction at the present time.

As the development plan for the city will not be completed in less than 25 years, the question of the immediate adoption of higher buildings will receive the Committee's earnest consideration, and it is probable that in the re-development area of the city, multi-storey



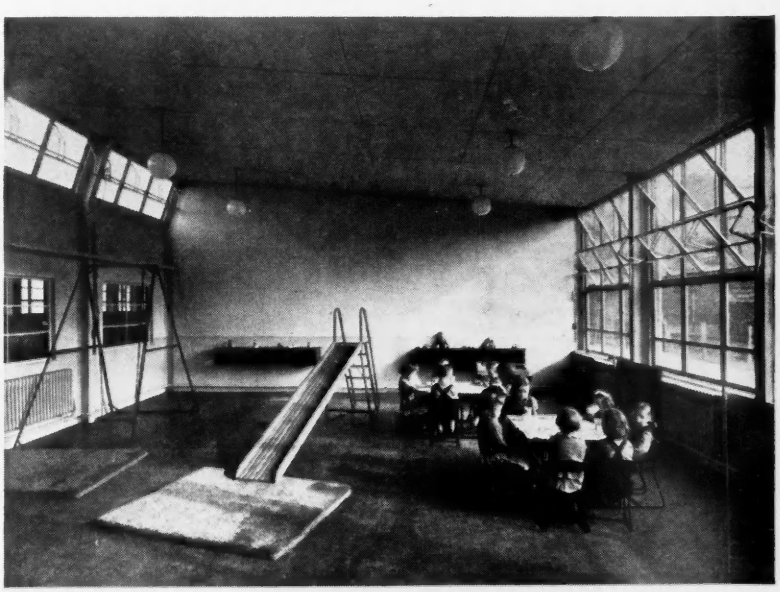
CAMBRAI HOUSE BRANCH TECHNICAL COLLEGE: S. T. Walker, M.A., F.R.I.B.A., Architect



CAMBRAI HOUSE BRANCH TECHNICAL COLLEGE: Ground-floor plan

KEY TO PLAN

1. Cloaks and lavatories.
2. Dressing-room.
3. Green room.
4. Property store.
5. Society storage.
6. Workshop.
7. Chair store.
8. Stage.
9. Assembly hall.
10. Foyer.
11. Heavy craft room.
12. Stores.
13. Cleaners' store.
14. Staff quiet room.
15. Staff common room.
16. Exhibition hall.
17. Medical inspection room.
18. Youth employment.
19. Office.
20. Recreative quiet room.
21. Leaders' room.
22. Games room.
23. Clerks.
24. Stationery store.
25. Principal.
26. Senior assistant.
27. Committee room.
28. Warden's room.
29. Gymnasium.
30. Clothing store.
31. Changing room.
32. Showers.
33. Equipment store.
34. Instructor's room and shower.
35. Filters.
36. Towel drying room.
37. Swimming-bath.
38. Cycle shed.
39. Car park.



BROOKFIELDS COUNTY PRIMARY SCHOOL: Reception classroom

(See page 239)

primary school buildings will be introduced. With few exceptions, the schools are without playing fields and it will be necessary to obtain some 2,500 acres outside the city boundaries for this purpose.

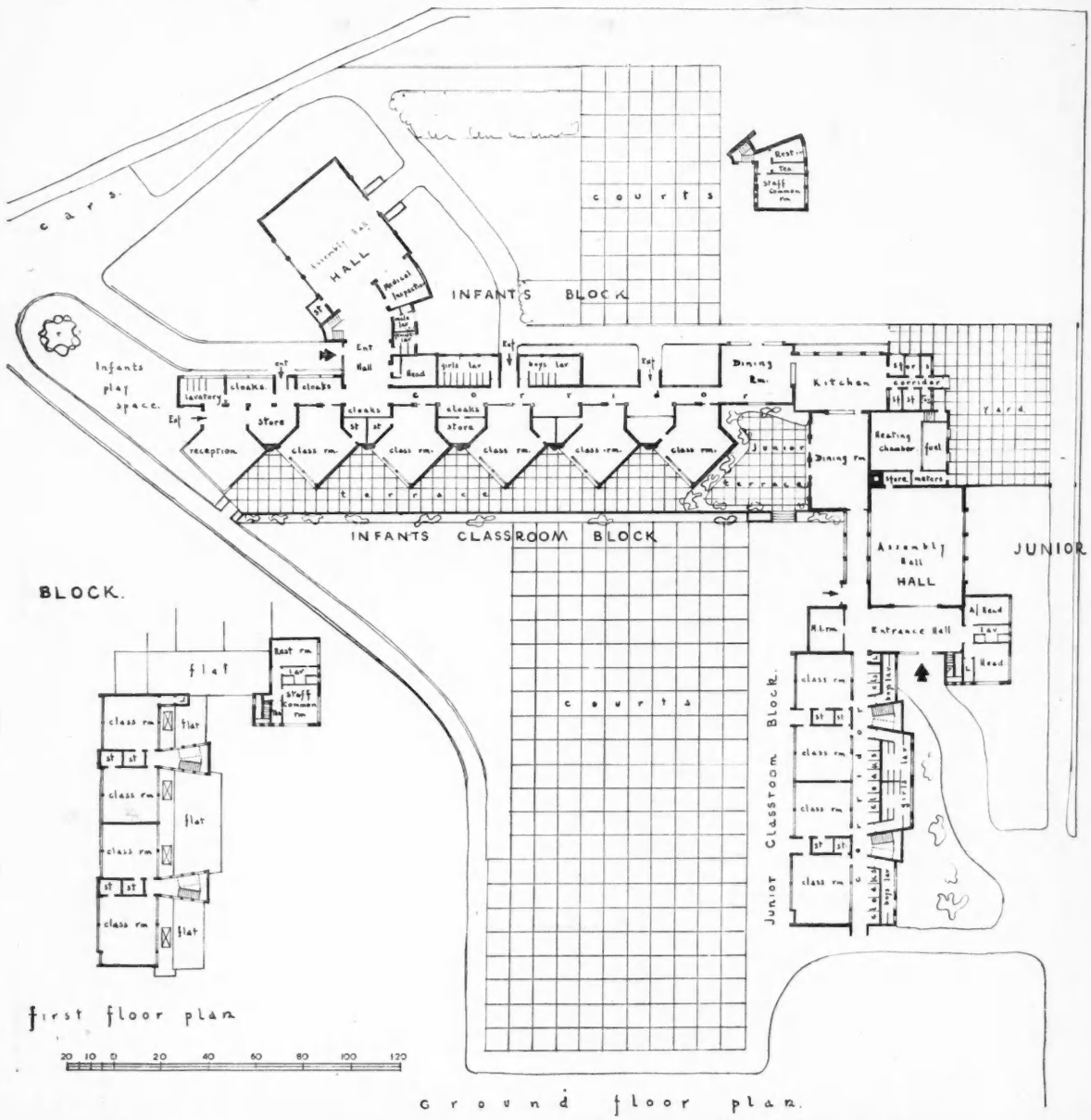
The West Midlands area is particularly deficient in building labour, especially bricklayers, and the 1950-51 programme will include a considerable percentage of buildings which will be designed to reduce the amount of site labour. The future demand will be for secondary schools, and it is on this type of building that a considerable amount of specialised research is being undertaken by a section of the Architect's Branch. While there are only six secondary schools in the 1951 programme, at least 12 will have to be undertaken in the 1952 programme if sufficient secondary places are to be available for the children at present passing through the primary stages.

Some Current Work

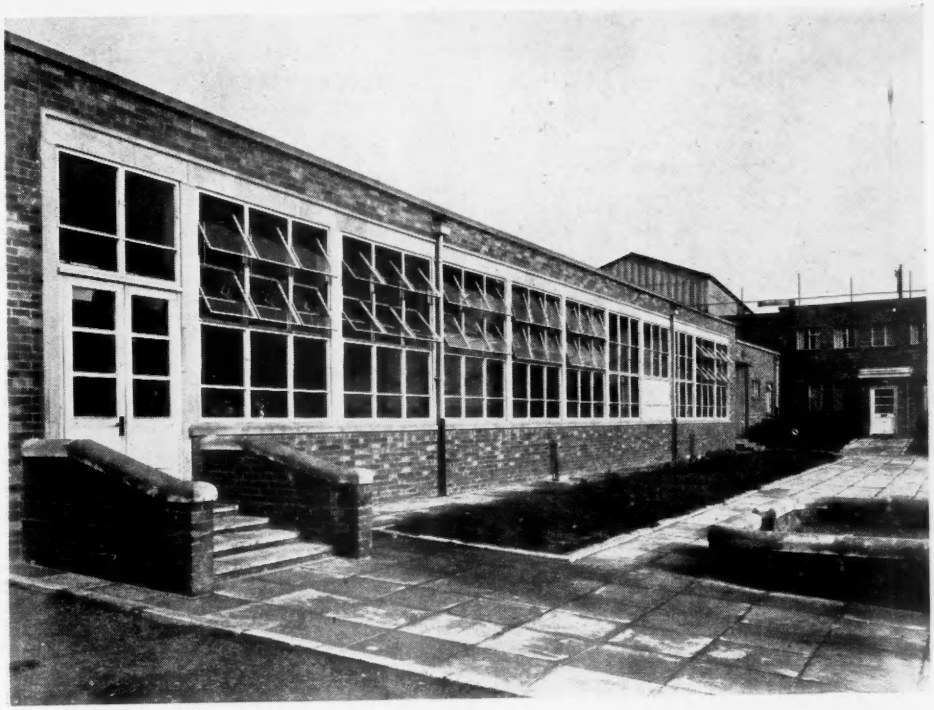
A SELECTION of current work carried out under the direction of the Department of the Architect to the Education Committee is given. The names of the consultants, builders and sub-contractors and suppliers engaged on the various works are given on page 247.

Four Dwellings, Quinton, Modern Girls: This three-form entry secondary modern school forms part of the 1949 programme, and was begun in December of that year. The estimated cost was £237,540, giving a cost per place of £358. The plan was shaped by a water main which runs roughly from north to south and by a 40 ft. fall in levels. In the foreground of the drawing (p. 235) is the youth centre block which is to be added shortly. Foundations are in reinforced concrete to carry the steel frame which is clad in brick and precast concrete panels. There is a precast concrete beam roof, covered externally with bitumastic felt on vermiculite screed. The architects are Messrs. J. B. Surman and Partners, F. and A.R.I.B.A.

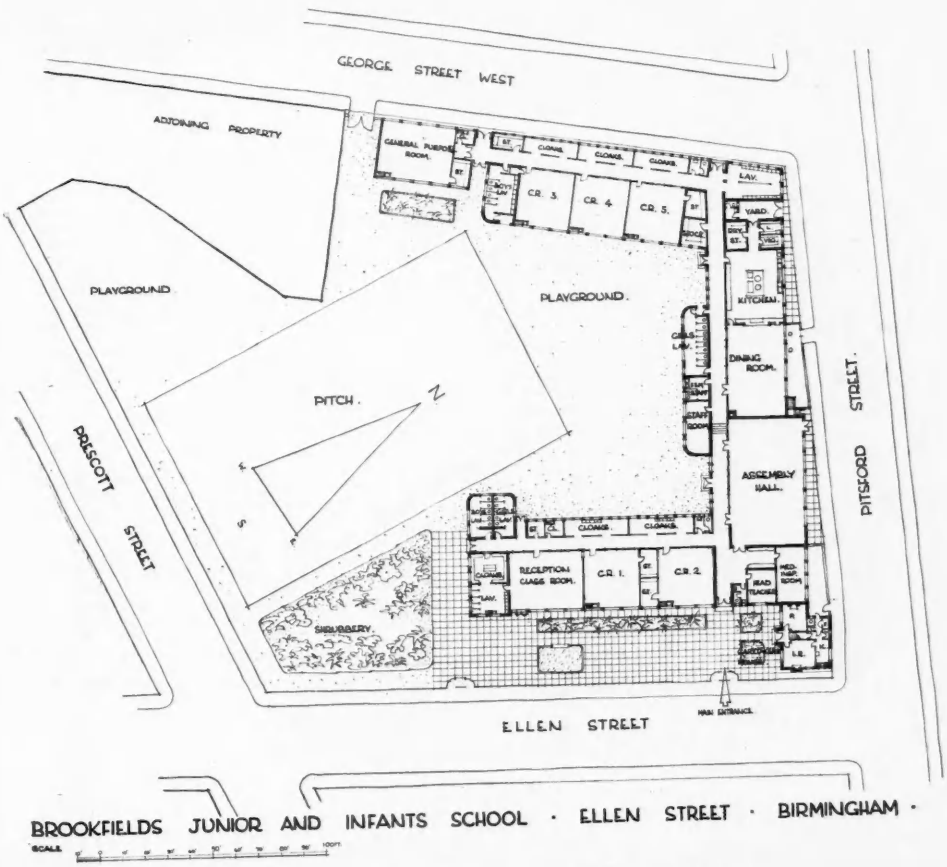
Queensbridge Road Secondary Modern Mixed: Part of the 1949 programme, this scheme was designed by Mr. Steele and developed by Messrs. Martin and Martin and W. H. Ward, F. and A.R.I.B.A. It is a four-form entry school for 600 pupils plus, planned on a 5¾-acre site. The main axis lies east and west. At the west end is the craftroom block of two storeys, the classroom block of three storeys being placed at right-angles to the main axis between the craftroom and science blocks. The scheme allows for the provision of an adult block at the east end, set at right angles to the main axis, to be built at a future date.



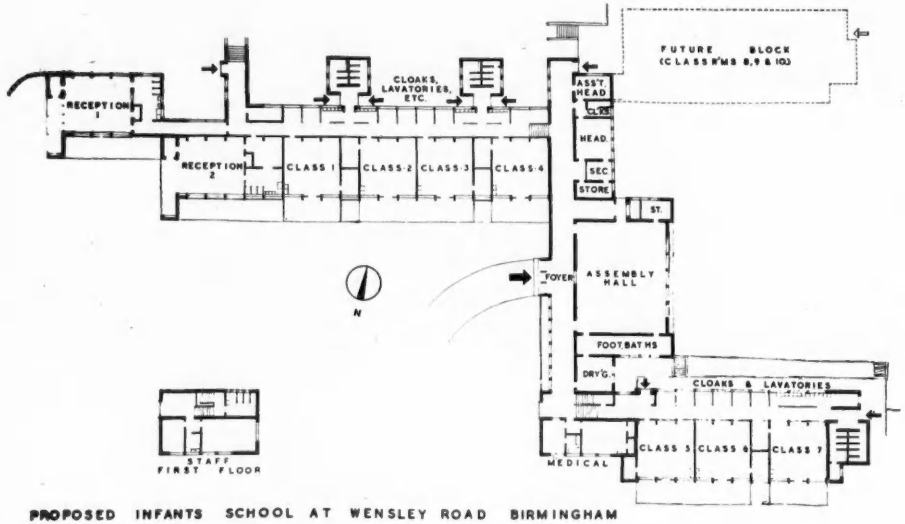
BARTLEY GREEN PRIMARY SCHOOL : Wood, Kendrick and Williams, Architects



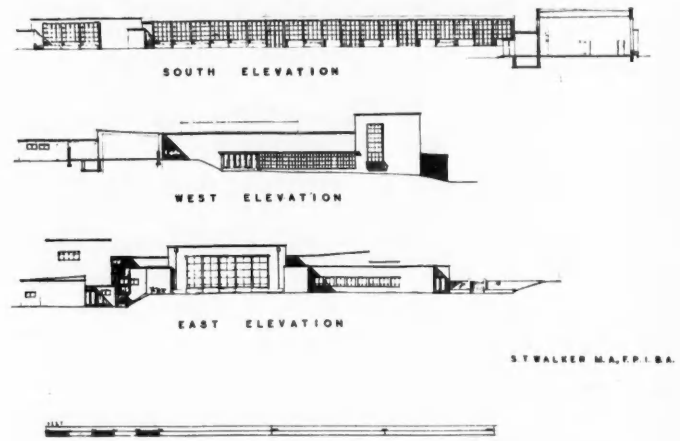
The east wing



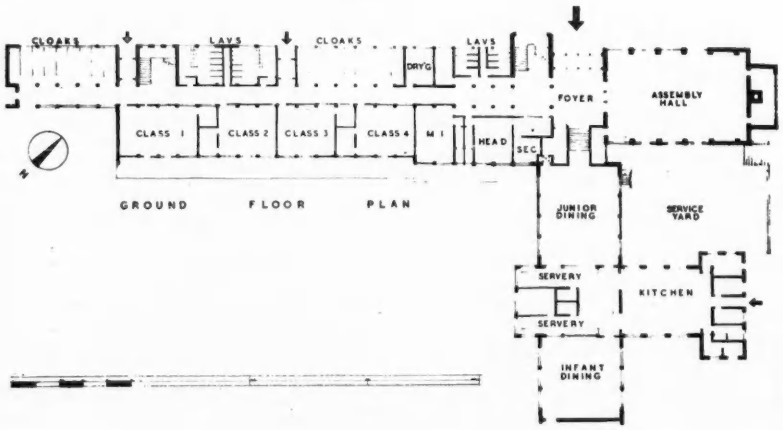
The late W. T. Benslyn, A.R.C.A., F.R.I.B.A., Architect



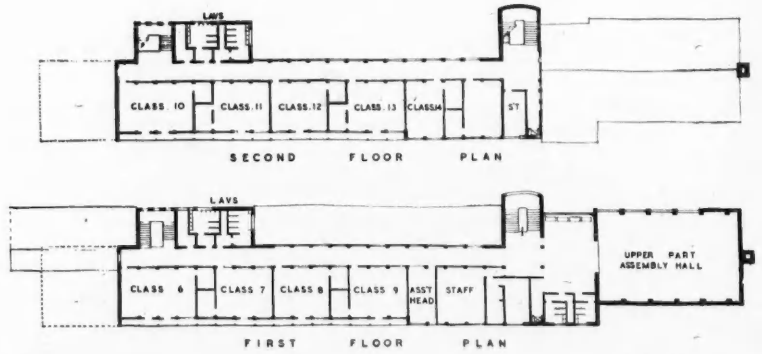
PROPOSED INFANTS SCHOOL AT WENSLEY ROAD BIRMINGHAM



S.T.WALKER M.A.,F.R.I.B.A.

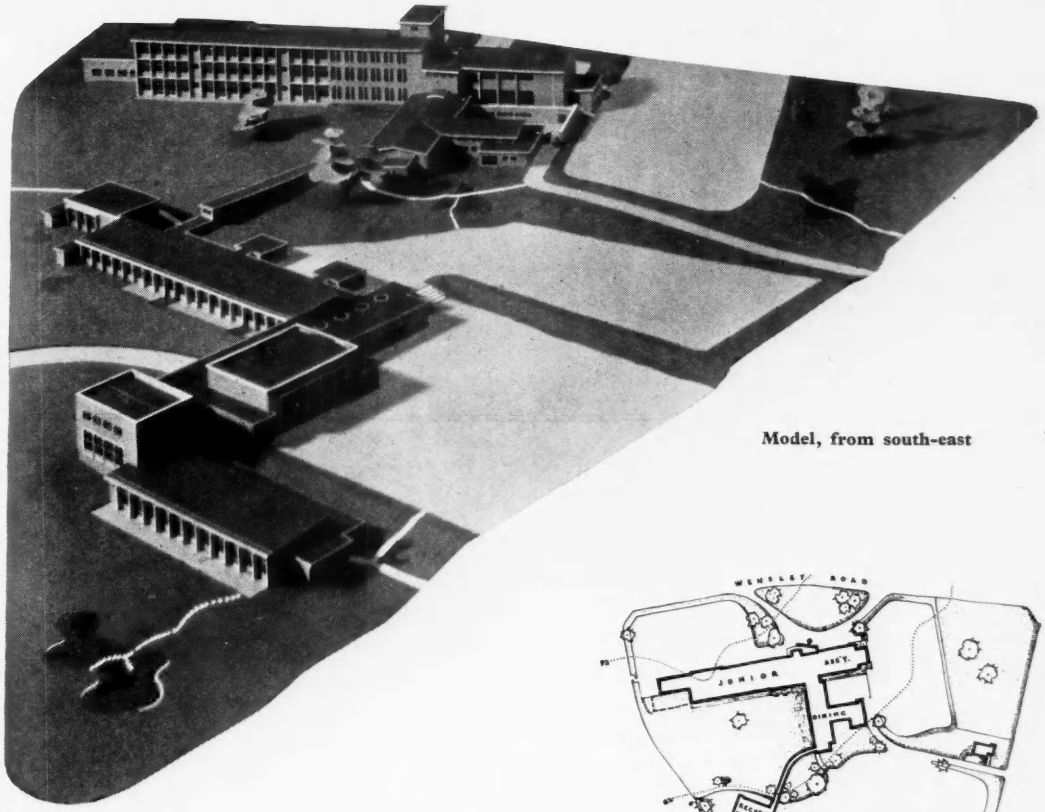


PROPOSED JUNIOR SCHOOL AT WENSLEY ROAD BIRMINGHAM



S.T.WALKER M.A.,F.R.I.B.A.

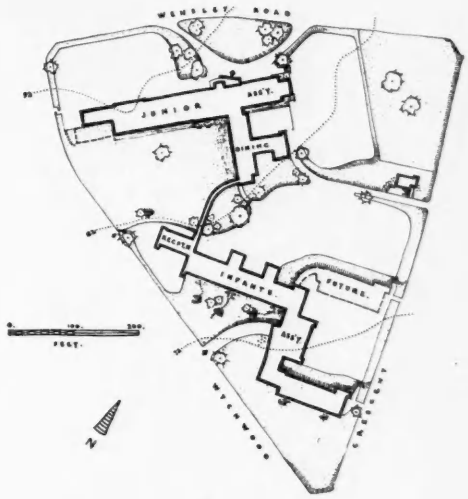
WENSLEY-ROAD JUNIOR AND INFANTS' SCHOOL : Plans and elevations



Model, from south-east

WENSLEY-ROAD JUNIOR AND INFANTS' SCHOOL

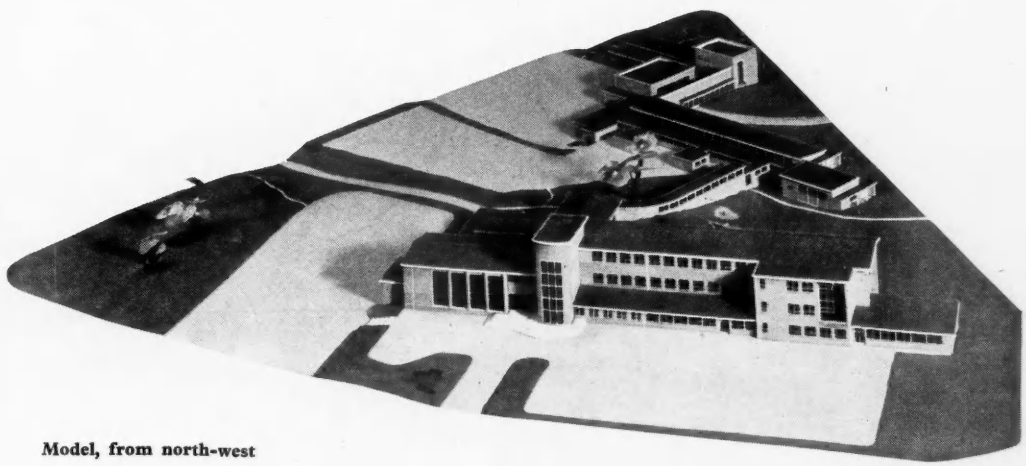
S. T. Walker, M.A., F.R.I.B.A., Architect



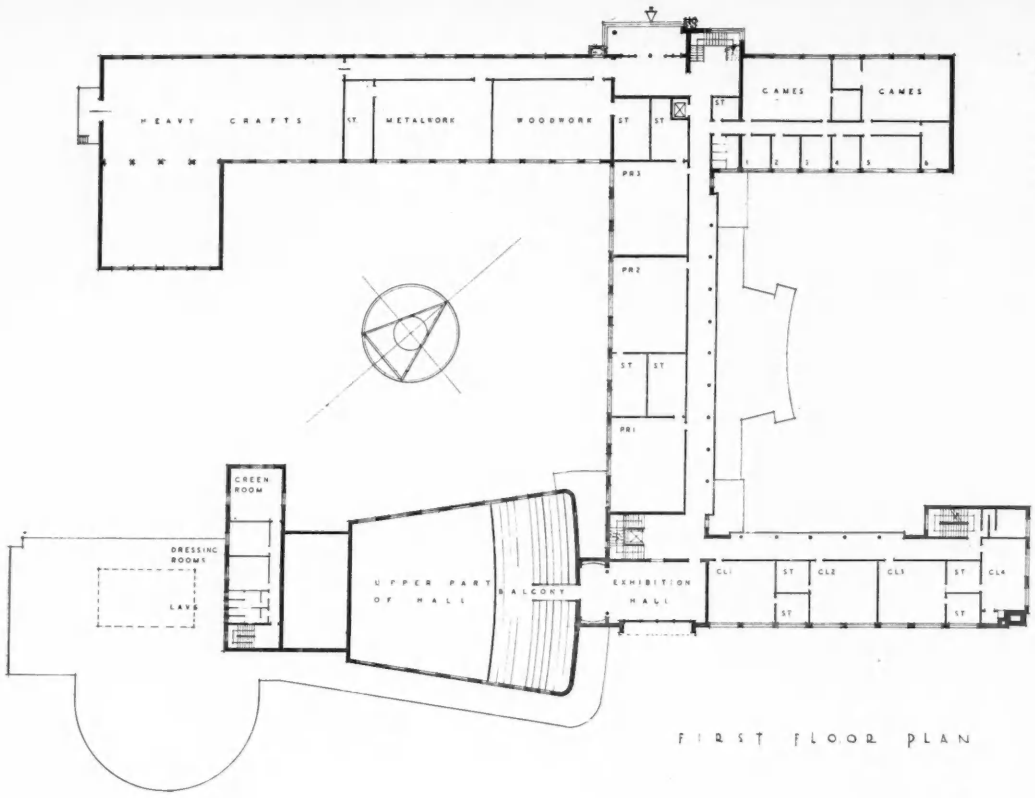
Site plan

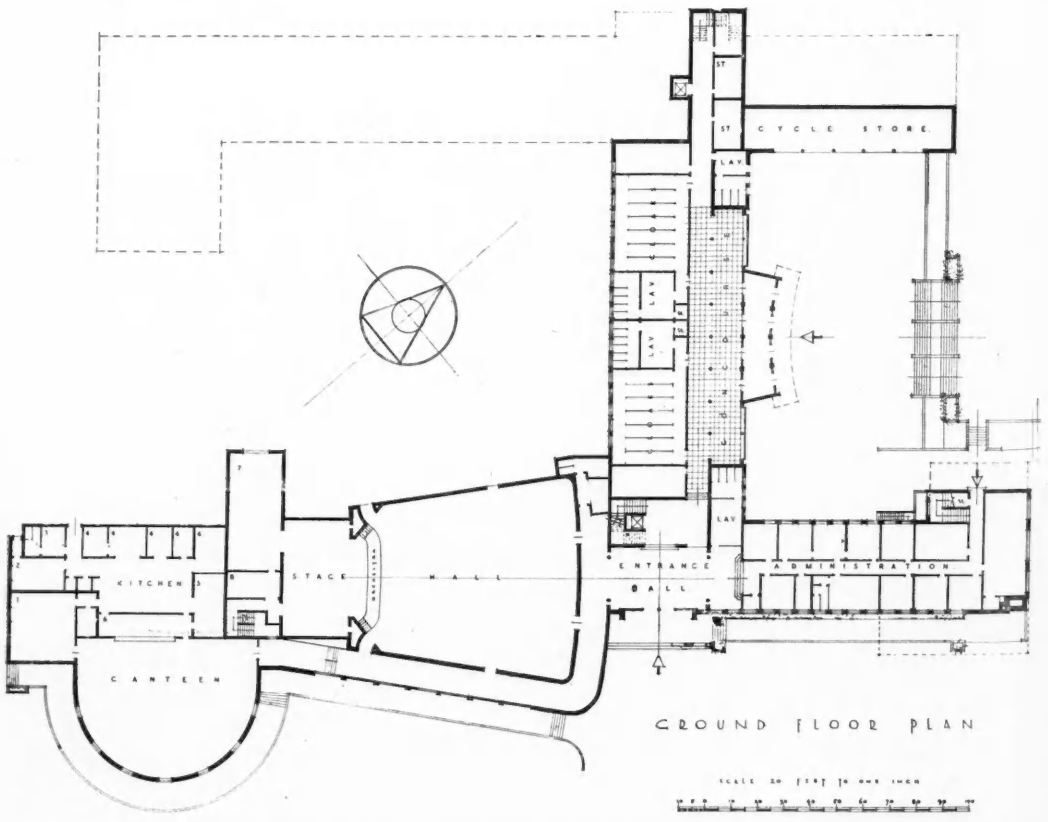
The building is of light steel framing with 11-in. cavity walls, floors and roof being of hollow tile construction. Windows and external doors are steel. The estimated cost is £270,000 which gives a cost per place of £358.

Cambrai House Branch Technical College : A site of about 10 acres is allocated to this project (part of the 1950 programme) and also a future three-form entry secondary modern school requiring about 3½ acres. An existing mansion on

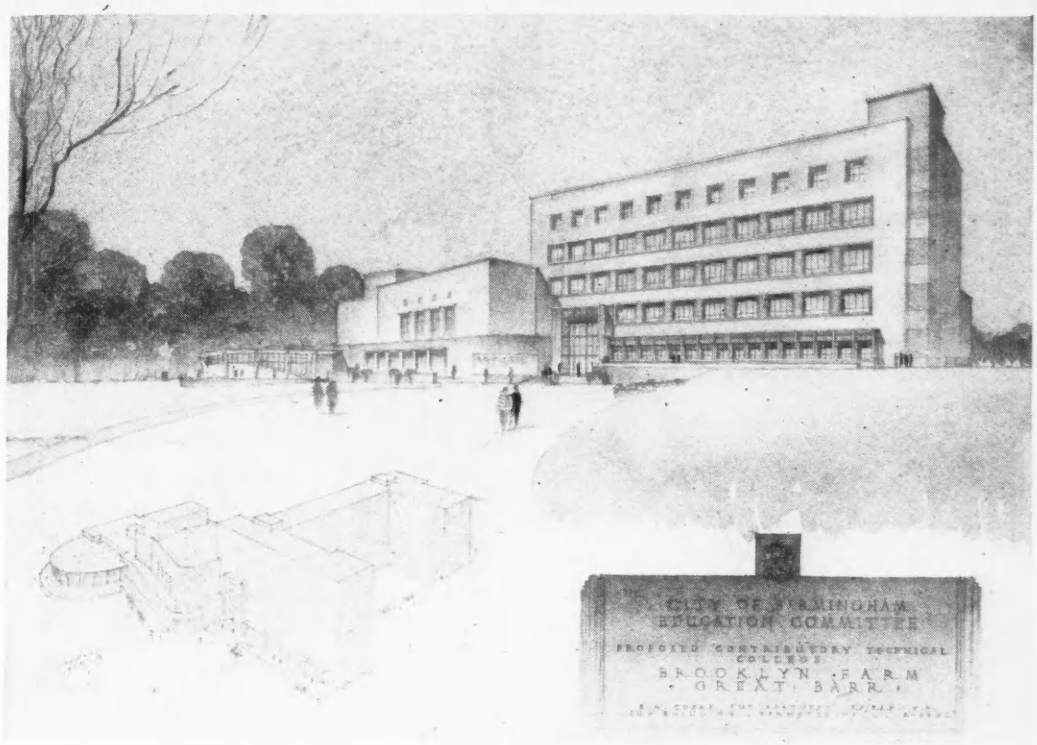


Model, from north-west





BROOKLYN FARM BRANCH TECHNICAL COLLEGE : S. N. Cooke and Partners, FF. and AA.R.I.B.A., Architects



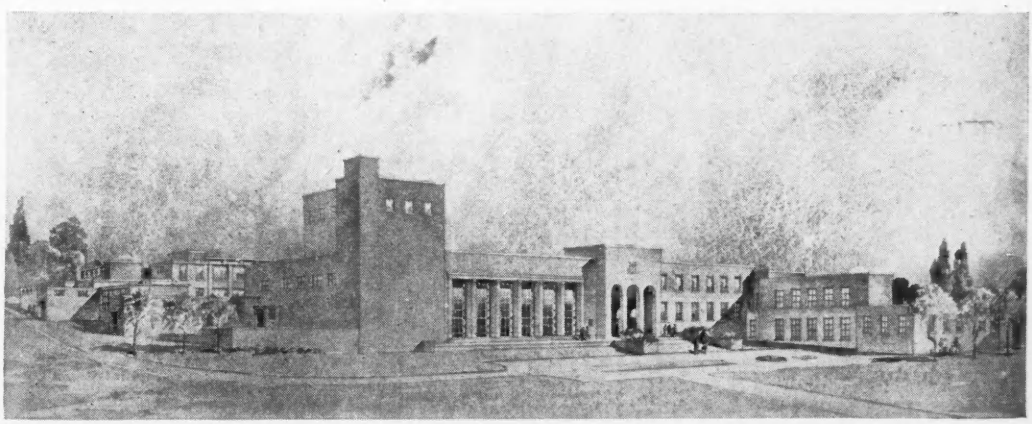
BROOKLYN FARM BRANCH TECHNICAL COLLEGE

the site is being used as an evening institute. Little precedent exists for such projects. The general bulk of the accommodation required is consequently to be as flexible as possible. The scheme as a whole should have a "collegiate" atmosphere. The programme requires :—

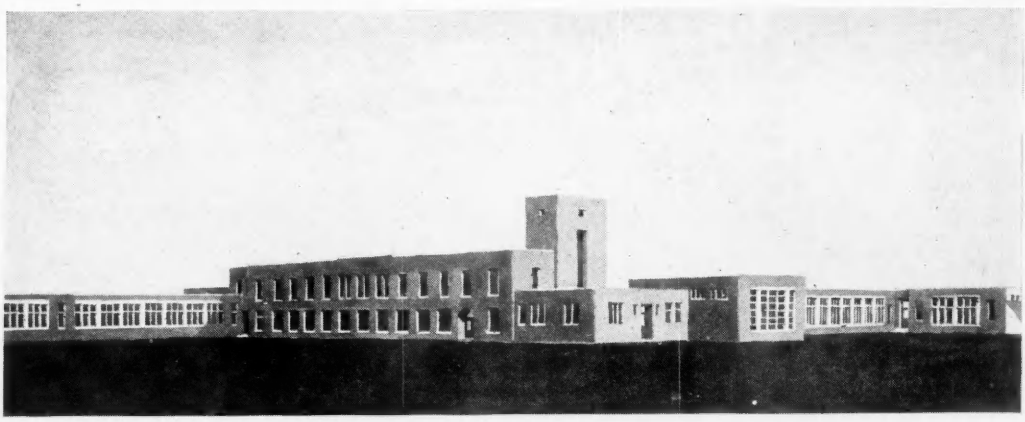
(*a*) general teaching accommodation for 400 to 500 students between the ages of 16 to 18 years of age, embodying many types of practical rooms, including heavy craftrooms, classrooms, lecture theatre, laboratories, library, recreation rooms, book shop, canteen to seat 250 people, etc.;
(*b*) an adult centre, incorporating library, common room, committee rooms, etc.;
(*c*) assembly hall with gallery to seat 1,000 people with full stage and ancillary accommodation ;
(*d*) swimming-bath ;
(*e*) two gymnasia ;
(*f*) central administration, medical unit and youth employment exchange.

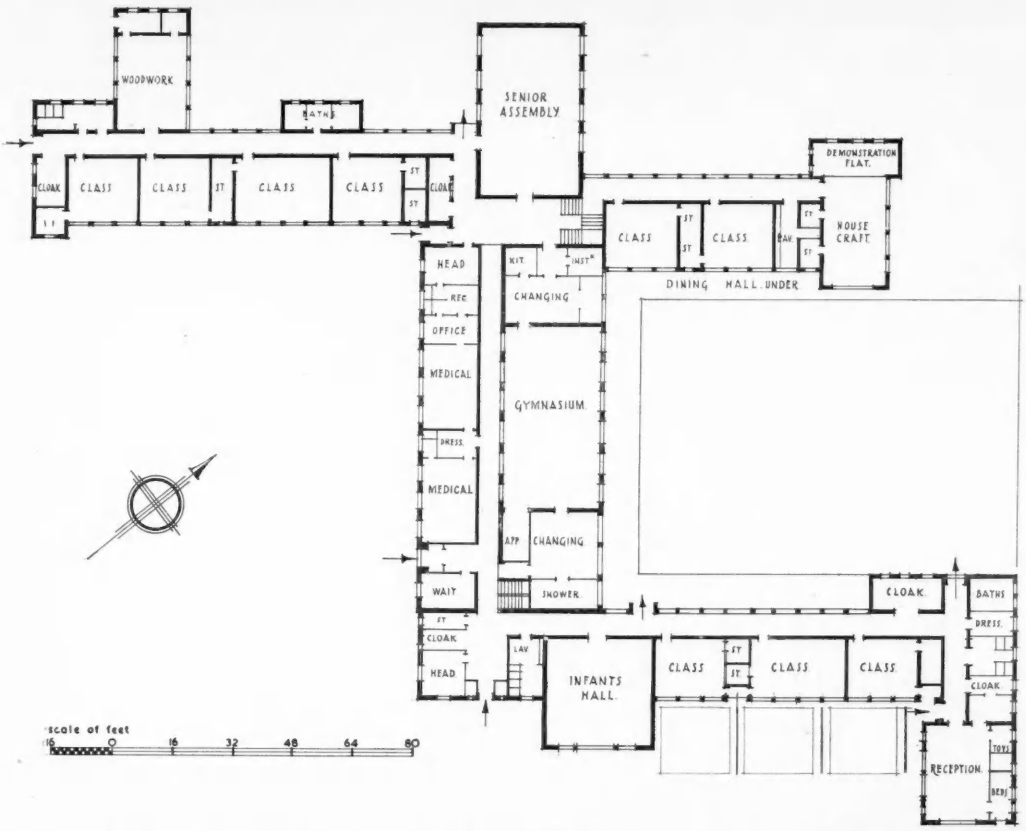
PLANNING : The main accommodation is sited with a south-west aspect on seven floors overlooking the central open space. This enables rapid and easy circulation throughout by means of passenger lifts. Accommodation is planned so that there should be minimum interference between units. The general administration and youth employment exchange are accessible from the entrance and exhibition hall (single storey) with the main entrance from a *porte-cochère*. The remainder of the ground floor is recreation accommodation. Laboratories are planned on the top floor ; this block is planned on a unit grid system.

The canteen section on the first and second floors forms a connecting link over a *porte-cochère* connecting the entrances to the main block and assembly hall. The latter lies at right angles to the north-east of main teaching block with stage



HARBORNE BLUECOAT SCHOOL: Harvey and Wicks, Architects



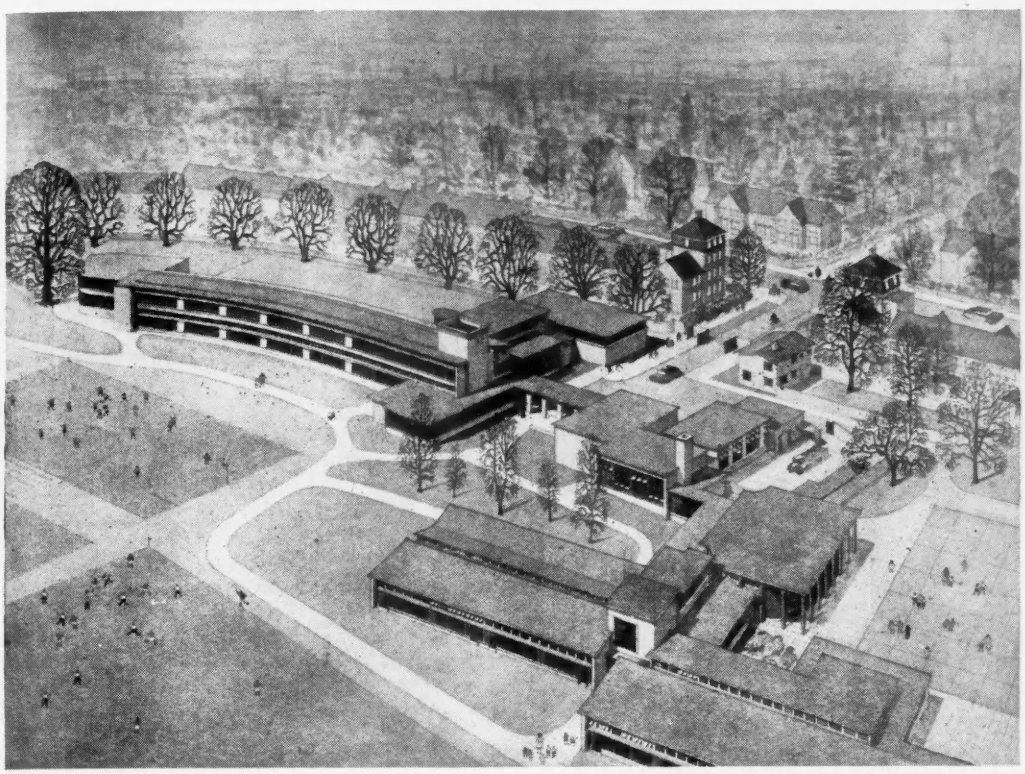


HALLMOOR-ROAD CO-EDUCATIONAL (Educationally sub-normal) SCHOOL
Crouch, Butler and Savage, F. and L.R.I.B.A., Architects

and ancillary accommodation at the outer end. Service with the canteen kitchen is planned at balcony foyer level.

The heavy crafts block, for quiet's sake, is separated from other units. Sited in the south-west corner, and readily accessible to heavy traffic, it is single construction with north light. The adult centre block is sited parallel to the main block to the south-west of it. Main access to this block is from the entrance passing through the exhibition space. Its aspect is south-east and only two storeys high. The swimming-bath and gymnasia (on two floors), with ancillary accommodation again form one isolated block flanking the south-east side of the main open space and south-east end of the main block. The architect is Mr. S. T. Walker, M.A., F.R.I.B.A., and the cost is estimated to be £250,000. Light steel framework, hollow tile flooring and steel deck and wood wool slab roofing is the construction.

Bartley Green Primary and J. M. and I.: Designed by Messrs. Wood, Kendrick and Williams, this primary and two-form entry junior mixed and infants' school is part of the 1950 programme. The site of 8½ acres is well elevated, and 320 children will be accommodated in the junior school, and 240 in the infants' block. The diagonal planning of the infants' classrooms should be noted, and all classrooms

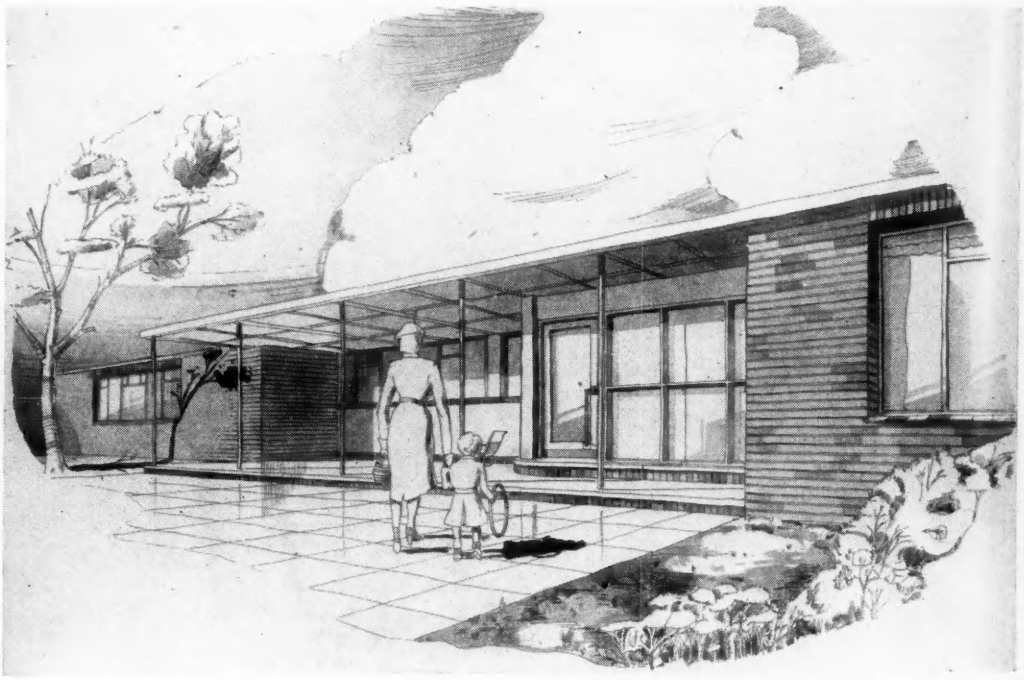


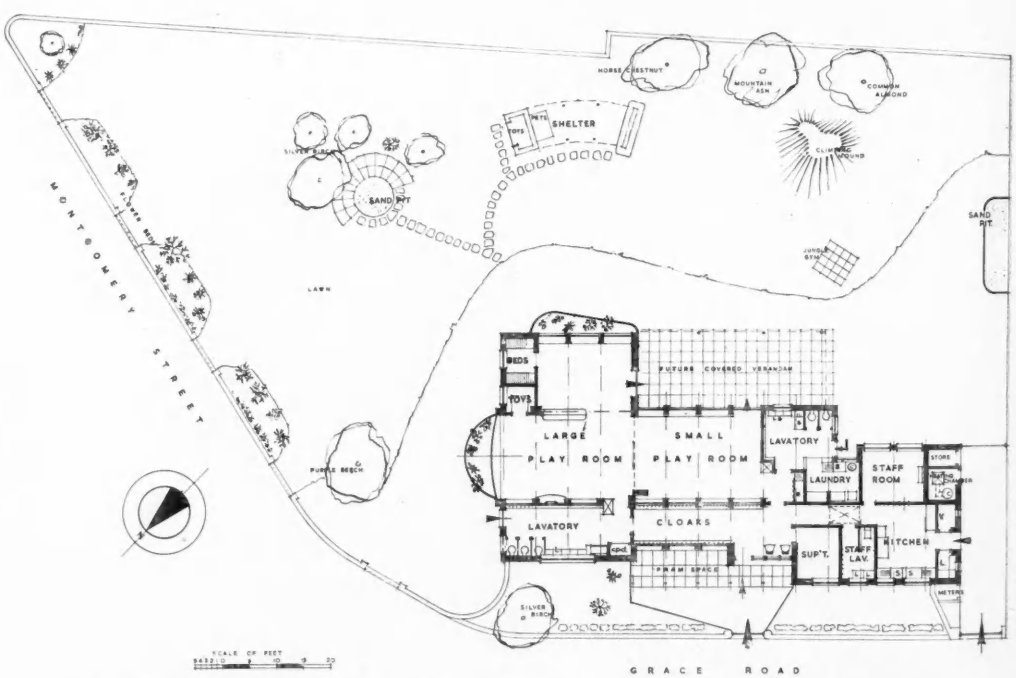
SHARD END (TIMBERLEY) COUNTY PRIMARY: Jackson and Edmonds, FF.R.I.B.A., Architects

have views over the playing-fields and distant valley. A separate dining-room served from one kitchen is included in each unit. The estimated cost is £90,155, giving a figure of £161 per place. Foundations are reinforced concrete, walls being load-bearing lined with Thermacoust, reinforced concrete roofs being covered with bitumastic felt.

Brookfields County Primary: Part of the 1947 programme, this school was designed by the late W. T. Benslyn,

CHERRY ORCHARD INFANTS' SCHOOL: Alex. Steele, Dip.Arch.(Edin.), A.R.I.B.A., Architect to Committee. K. W. Graham, A.R.I.B.A., Chief Assistant Architect





MONTGOMERY-STREET NURSERY SCHOOL: Alex. Steele, Dip.Arch.(Edin.), A.R.I.B.A., Architect to Committee

F.R.I.B.A., then Architect to the Committee, and opened by the Minister of Education on October 28 last. The cost for the 280 places was £47,600 plus £1,120 for heating and lighting, giving a cost per place of £170, plus £4 for heating and lighting. The classrooms are in two separate wings on either side of a central administrative and dining block. A reception class unit is provided for the youngest entrants (see p. 237), planned as an individual unit. Each classroom in the Infant department has its own store and cloakroom, also a sink. These cloakrooms are complete with washbasins and open off the corridor opposite the respective

(*Continued on page* 247)

BIRMINGHAM EDUCATION PROGRAMME

(*Continued from page* 246).

classrooms. Natural lighting to classrooms is by large windows, on the opposite side there are clerestory windows constructed at an angle to obtain a high degree of light. Careful attention has been given to the colour scheme, and sections which do not receive direct sunlight are decorated in brighter tints. Heating is by radiators. The school is erected on an r.c. raft, the superstructure being a light steel framing with brick infilling. Natural stone dressings are used, Hollington stone in classrooms, wings and brown York elsewhere.

Wensley-road Junior and Infants': This site is of 6½ acres, one of which is reserved for a nursery school. The scheme is divided into three main blocks : (*a*) the Junior school, of three storeys, at the north-west part of site ; (*b*) the Infants' block, one-storey high, at the south and lowest part with (*c*) the dining block in between. The curved corridor from (*b*) to (*c*) is curved to retain an existing oak tree. The three-storey Junior classroom block frees a restricted site for other purposes. It is intended that the Junior assembly hall should be licensed for public entertainments. Heating chamber, etc., is planned below the Junior assembly hall. Sectional boilers with hopper-type automatic stokers supply impelled low-pressure hot water throughout both schools, mains being accommodated in floor and ceiling ducts. Heating is by radiators of hospital type, except in the reception classroom which is sub-floor heated.

Construction is light steel frame with steel trusses, reinforced hollow tile suspended floors and brick cladding. Projecting precast concrete vertical fins and *in situ* concrete canopies are provided on the south sides to classrooms in both schools to reduce sun glare. Classroom blocks on the Infants' school are a combination of precast and *in situ* reinforced concrete framework, adopted to economise on structural steel. The school, part of the 1949 programme, is estimated at £148,300, or £176 per place. The architect is Mr. S. T. Walker, M.A., F.R.I.B.A.

Brooklyn Farm Branch Technical College : Part of the 1949 programme, this college has been designed by Messrs. S. N. Cooke and Partners, FF. and AA.R.I.B.A., on a site of approximately four acres. It is divided into three main sections : (*a*) a north light single-storey section in which brickwork, plastering, joinery and plumbing work can be carried out ; (*b*) a five-storey section of classrooms and administration to which is connected (*c*) the assembly hall. The last building will accommodate 750 on ground floor and 250 in stepped balcony. Adjacent to the hall are dining-room and kitchens which will serve 500 in two sittings. The servery between kitchen and dining-room can be used for the preparation of light refreshments for dances, etc. The two gymnasia and swimming-baths are housed in a separate building.

Construction is steel frame with 14-in. brick panels, suspended hollow tile floors and concrete stairs. The external facings are not brick bonded to the common backing but are tied in with continuous strips of expanded metal placed at every fourth course. The cost is £250,000.

Harborne Bluecoat School : This secondary modern school, in the 1949 programme, will accommodate a total of 510 boys and girls ; it adjoins the existing Bluecoat School with which the elevational treatment was required to be in keeping. The front portion to Harborne-road contains entrance and assembly halls, the dining-room and kitchen and will eventually include an adult wing for evening work at the N.E. corner. The teaching portion is placed behind. Sand-faced bricks with some stone dressings are used and flat roofs are covered with asphalt. The architects are Messrs. Harvey and Wicks, and the estimated cost is £202,715, giving a cost per place of £365.

Hallmoor-road E.S.N. Co-educational : Designed by Messrs. Crouch, Butler and Savage, F. and L.R.I.B.A., as part of the 1949 programme, this school, for educationally sub-normal children of both sexes, is an experiment in co-education. It is planned on an open site of 3.23 acres, with primary and senior blocks in separate wings, each in direct contact with the centre block containing the administration, medical rooms and gymnasium. The lower level accommodates the dining-hall and kitchen. In order to take advantage of prefabrication, the Orlit system has been adopted , the external walls being brick-faced. A more traditional construction is adopted in the centre block with brick walls, but with precast concrete units in floors and roofs. The cost was £96,627 or £437 per place.

Shard End (Timberly) Three-Form Entry : The layout groups a junior school for 480, and an infants' school for 360 on an eight-acre site. In the planning, the need to segregate noisy from quiet areas has been a strong influence, and the two assembly halls, which also serve as activity rooms, are planned to be separated from classrooms by non-teaching space. While separate, the two schools are served by a common kitchen. The junior school is planned as a two-storey classroom block, with lavatories and cloaks on each floor. The infants' school has classrooms planned in pairs, each having independent cloaks and lavatories. The assembly hall of the infants' school is elliptical in shape with large windows on to the playground ; the aim has been to give an informal character. Steel-frame construction with cavity brick infilling has been used. The cost, estimated at £147,000, works out at £175 per place. The architects are Messrs. Jackson and Edmonds, FF.R.I.B.A., and the scheme is part of the 1949 programme.

Cherry Orchard Infants' School : Designed by the Architect's branch of the Education Department under Mr. Alex. Steele, A.R.I.B.A., this school was estimated at £20,000, or £125 per place (subject to final assessment). A four-class temporary, the building is carried on a r.c. raft which is supported on a large grillage of r.c. beams cast *in situ* with the floor slab ; this was made necessary by the fact that the school occupies the site of a former old pond. The wing of four classrooms is in aluminium, but the ancillary accommodation is in 2-in. brickwork with a ⅜in. joint raked horizontally with flush faced perpends. The roof is a precast r.c. slab supported by steel beams and circular columns. Some interesting finishes have been used, particularly the entrance hall and corridors which are sand-lime bricks' rubbed down lightly and left natural.

Much care has been given to the colour schemes, some of the classrooms being treated by having each wall a different tint with a view to producing a balance in reflective value of each wall. The ends of corridors are a bright red, to act as a caution to the sometimes headlong movement of young children along a straight run of corridor. The school is part of the 1949 programme.

Montgomery-street Nursery : The proposal here is to erect a nursery school unit of 40 scholars, included in the 1950 building programme, on about one-third of an acre. The playrooms are two in number, usable together or separately by incorporation of a folding screen and mobile toy cupboards. The total area is 1,000 sq. ft. The corridor serves as space for cloaks. Adequate bed storage is provided, and will be equipped with trolley racks for the vertical storage of beds. Superintendent's office, staff room, kitchen, cloaks and stores are provided. The construction of the building will be traditional, and internal decoration will be closely studied to provide tests of quality in wear and appearance. The garden will be carefully laid out. The scheme, part of the 1950 programme, is estimated to cost £9,200, inclusive, of all site layout, or £180 per place. It has been designed under the direction of Mr. Steele, Mr. H. Burton being Senior Assistant Architect in charge.

FOUR DWELLINGS SCHOOL, QUINTON.

Messrs. J. B. Surman and Partners, F. and A.R.I.B.A., were the architects, the structural engineer being Mr. S. Willis, and the heating and electrical engineer being Mr. A. J. Pashler. The quantity surveyors were Messrs. Wood and Allesbrook, and the general contractors Messrs. S. F. Swift, 200, Alcester-street, Birmingham, 12. The general foreman was Mr. James Sinclair, and the assistant foreman Mr. Wilfred Bateman. Sub-contractors and suppliers were : steelwork, Horseley Bridge and Thomas Piggott, Ltd. ; bricks, Proctor and Lavender, Ltd. ; masonry, Wragg Bros. ; hollow floor and roof beams, and eaves blocks, Concrete, Ltd. ; reconstructed stone, Girlings Ferro-Concrete Co. ; hollow concrete panels, Tarmac, Ltd. ; staircase and steps, Constone, Ltd. ; windows, Henry Hope and Sons ; door frames, pressed metal doors and lantern lights, Henry Hope and Sons, Ltd. ; glass dome lights, T. and W. Ide, Ltd. ; doors—ply faced flush, Leaderflush, Ltd. ; doors—metal faced flush, Venesta, Ltd. ; sliding doors, John Gibbs, Ltd. ; roller shutters, Roller Shutters, Ltd. ; w.c. and shower partitions, Flexoply Industries, Ltd. ; lift, Messrs. Keighley Lifts, Ltd. ; asphalt tanking, etc., Neuchatel Asphalte Co., Ltd. ; bituminous roofing, Messrs. D. Anderson and Son, Ltd. ; heating, Brightside Foundry Co., Ltd. ; sanitary fittings, A. D. Foulkes and Co., Ltd. ; sewage disposal pump, Tuke and Bell, Ltd. ; suspended ceilings, Rudders and Paynes, Ltd. ; duct access covers, Broad's Mfg. Co., Ltd. ; and masonry slot and anchors, Abbey Building Supplies Co., Ltd.

BARTLEY GREEN PRIMARY SCHOOL

Messrs. Wood, Kendrick and Williams were the architect, the structural engineers being Messrs. D. Carrington, and the heating and electrical engineers, Messrs. Hoare Lea and Partners. The quantity surveyors were Messrs. Silk and Frazier, and the general contractors are not yet appointed. The sub-contractors for the site works are W. and J. Webb.

QUEENSBRIDGE-ROAD SCHOOL

Messrs. Martin and Martin and W. H. Ward, F./A.R.I.B.A. were the architects and the structural engineer was Mr. G. W. Costain, M.I.Struc.E., the heating and electrical Messrs. Hoare, Lea and Partners. The quantity surveyors were Messrs. Reuben Holbrow and Partners, and the general contractors Messrs. Thos. Lowe and Sons, Ltd. The sub-contractors were : hollow floors, the Kleine Co., Ltd. ; metal windows and doors, H. Hope and Sons, Ltd. ; asphalt tanking, Val de Travers, Ltd. ; heating, Ashwell and Nesbit, Ltd. ; structural steel, Charles Wade and Co., Ltd. ; suspended ceilings, the Merchant Trading Co., Ltd. ; reconstructed stone, Tarmac, Ltd. ; thermolite roofing, D. Anderson and Son, Ltd. ; site works, W. J. Whittall and Son, Ltd.

CAMBRAI HOUSE BRANCH TECHNICAL COLLEGE

Mr. S. T. Walker, M.A., F.R.I.B.A., is the architect, the structural engineer being Mr. D. W. James-Carrington, B.Sc., M.I.Struct.E., and the heating

and electrical, Mr. A. J. Pashler, A.M.I.C.E. The quantity surveyors are Messrs. Silk and Frazier, FF.R.I.C.S., and the general contractors are not yet appointed.

BROOKFIELDS SCHOOL

The architect was the late W. T. Benslyn, A.R.C.A., F.R.I.B.A., the structural engineer being Mr. Septimus Willis, A.M.I.C.E., and the heating and electrical, Messrs. Hoare, Lea and Partners. The quantity surveyors were Messrs. Silk and Frazier, FF.R.I.C.S., and the general contractors Messrs. C. Green and Sons, Ltd. Sub-contractors were : heating, G. N. Haden and Sons, Ltd. ; lighting, Ellis and Ward, Ltd. ; facing bricks, Himley Brick Company ; sanitary fittings, W. E. Farrer ; ironmongery, Parker, Winder and Achurch, Ltd. ; flooring, Granwood ; cloak fittings, Cloakroom Equipment, Ltd. ; metal windows, West Bromwich Casement Co., Ltd. ; felt flooring, F. McNeil and Co., Ltd. ; concrete roofs, Smiths Floors, Parkfield Concrete Co., Ltd. ; stonemasons, D. French (Stonemasons), Ltd. ; plastering, E. B. Trumpers ; tarpaving, Birmingham Asphalte and Paving Co., Ltd. ; w.c. cubicles, Henry Hope and Son.

WENSLEY-ROAD SCHOOL

Mr. S. T. Walker, M.A., F.R.I.B.A., was the architect, the structural engineer being Mr. D. W. James-Carrington, B.Sc., M.I.Struc.E., and heating and electrical, Messrs. Hoare, Lea and Partners. The quantity surveyors were Messrs. Silk and Frazier, FF.R.I.C.S., and general contractors Messrs. J. R. Deacon, Ltd. The sub-contractors were : sanitary equipment, Rowe Bros. and Co., Ltd. ; door furniture and ironmongery, James Gibbons, Ltd. ; metal windows and pressed metal doors, Henry Hope and Sons, Ltd. ; lift, Evans Lifts, Ltd. ; patent flooring, Granwood Flooring Co., Ltd. ; bricks, Blockleys, Ltd. ; steelwork, Messrs. Woods, Ltd. ; r.c. floors and roofs, Diespeker and Co., Ltd. ; r.c. staircases, John Ellis and Sons, Ltd. ; electrical services, Frank Burton and the National Electrical Engineering Co. ; heating and hot water services, W. Armstrong, Ltd. ; wood strip flooring, Bennetts' Wood Flooring Co., Ltd. ; wood wool and felt roofing, Midland Asphaltic Roofings ; insulation board ceilings, Rudders and Paynes, Ltd. ; reconstructed stonework, Constone, Ltd. ; flush doors, the Adamite Co., Ltd. ; asphalt, Ragusa Asphalte Co.

BROOKLYN FARM BRANCH TECHNICAL COLLEGE

Messrs. S. N. Cooke and Partners, FF./AA. R.I.B.A., were the architects ; the structural engineer being Mr. Geo. W. Costain ; and the heating and electrical, Mr. A. J. P. Pashler, Esq., A.M.I.C.E. The quantity surveyors were Messrs. Collins and Britton, and the general contractors, Messrs. J. R. Deacon, Ltd. The sub-contractors were : steelwork, Charles Wade ; structural floors, Helical Bar and Eng. Co., Ltd. ; lifts, Evans Lifts ; asphalt, Limmer and Trinidad Co. ; stone and precast staircases, Constone, Leicester ; windows, pat. glazing, dome lights, lanterns, Henry Hope ; steel tubing, Ruberoid Co. ; bricks, Blockleys.

HARBORNE BLUECOAT SCHOOL

Messrs. Harvey and Wicks, were the architects, the structural engineer being Mr. S. Willis, A.M.I.C.E., and the heating and electrical, Messrs. Hoare, Lea and Partners. The quantity surveyors, were Messrs. Silk and Frazier ; and the general contractors, Messrs. C. Green and Sons, Ltd. The sub-contractors were : steelwork, Rubery Owen and Co. ; r. c. precast beams for roof and floor slabs, Concrete, Ltd. ; natural stone, Rutland Masonry ; artificial stone, Stewards Granolithic, Ltd. ; facing bricks, Blockleys, Ltd.

HALLMOOR-ROAD SCHOOL

Messrs. Crouch, Butler and Savage, F./L.R.I.B.A., were the architects ; the structural engineer being Mr. D. W. James-Carrington, B.Sc., M.I.Struc.E. ; and the heating and electrical, Mr. A. J. Pashler, A.M.I.C.E The quantity surveyors were Messrs. Silk and Frazier, FF.R.I.C.S., and the general contractors, Messrs. Tarslag, Ltd. The sub-contractors were : heating and hot water, Walter Armstrong, Ltd. ; electrical work, J. H. Payne (Birmingham), Ltd. ; plumbing, David F. Wiseman and Sons, Ltd. ; sanitary fittings A. D. Foulkes, Ltd. ; fencing, Wickham Blackwell, Ltd. ; windows, Monk Metal Window Co., Ltd. ; precast floors, etc., Concrete, Ltd. ; ash hoist, Evans Lifts, Ltd. ; reconstructed stone, Stuarts Granolithic Co., Ltd. ; floor and wall tiling, H. J. Glover, Ltd. ; roofing, Midland Asphaltic Roofings, Ltd. ; plastering, McGin and Rall ; floors, Granwood Paving Co., Ltd., Hollis Bros., Ltd., Ragusa Asphalte Paving Co., Ltd. ; glazing, E. J. Gilbert ; painting, Home and Industrial Decorators, Ltd. ; structural steel, Banister Walton and Co., Ltd.

SHARD END SCHOOL, TIMBERLEY

Messrs. Jackson and Edmonds, FF.R.I.B.A., were the architects, the structural engineer being Mr. S. Willis, A.M.I.C.E., and the heating and electrical, Messrs. Hoare, Lea and Partners. The quantity surveyors were Messrs. Silk and Frazier, FF.R.I.C.S., and the general contractor, Mr. C. L. Smith. The sub-contractors were : steelwork, Edward Wood, Ltd. ; precast concrete beams and reconstructed stone, Constone, Ltd. ; windows, John Gibbs, Ltd. ; floor finishes, Granwood, Ltd. ; facing bricks, Himley Brick, Co., Ltd. ; sanitary fittings, Doulton and Co., Ltd. ; ironmongery, James Gibbons, Ltd. ; electrical installation, Baxter and Impey, Ltd. ; heating installation, Ashwell and Nesbit, Ltd. ; lifts, Evans Lifts, Ltd.

CHERRY ORCHARD INFANTS' SCHOOL.

The architect was Mr. Alex. Steele, A.R.I.B.A., Architect to the Committee, Education Department, and Messrs. K. W. Graham, A.R.I.B.A., and Geo. Cruickshank, the structural engineer being Mr. Septimus Willis, A.M.I.C.E., and the heating and electrical, Messrs. Hoare, Lea and Partners. There was no quantity surveyor, and the general contractors were the Repairs Department, Education Committee, Mr. Raw, Manager of Works (direct labour). The sub-contractors were : bricks, facing, external, Blockleys, Ltd. ; bricks, facing, internal, Lunt, Ltd. ; stone dressings, Empire Stone Co., Ltd. ; steelwork, Wilfred Robbins, Ltd. ; precast concrete roofing, Helical Bar and Engineering Co., Ltd. ; cell concrete insulation, Celcon, Ltd. ; roofing felt, Permanite, Ltd. ; windows (aluminium), Monk Metal Window Co., window controls, Arens Controls, Ltd. ; doors (aluminium), Bristol Aeroplane Co. (Housing), Ltd. ; external plumbing goods, Vitreflex Enamel; fencing and gates, Parker, Winder and Achurch, Ltd. ; dome roof lights, Gardner and Sons, Ltd. ; tar paving, Birmingham Asphalte Tarpaving Co., Ltd. ; heating and hot water, J. S. Wright and Co., Ltd. ; lighting (electric), S. Hare and Sons. *Floor finishes* : " Ropol " and terrazzo, Roman Mosaic, Ltd. ; semastic tile, Semtex, Ltd. ; quarry tile, Robertson. *Cloakroom fittings* : ironmongery, Mountford Bros. ; sanitary ware, Associated Clay Industries, Ltd. ; w.c. partitions, Rowe Bros. ; fireplace surrounds, Rowe Bros., dado finishes, J .Ellis and Sons, Ltd. ; paint Imperial Chemical Industries, Ltd. ; flush doors (internal), the Adamite Co., Ltd.

MONTGOMERY-STREET SCHOOL

The architects are the Architect's Branch, Education Department, Birmingham, the structural engineer being Mr. Septimus Willis, A.M.I.C.E., and the heating and electrical the Engineer's Branch, Education Department, Birmingham. The quantity surveyors are Messrs. Silk and Frazier, and the general contractors have not yet been selected.

IN PARLIAMENT

Building in Scotland

ON February 8, MR. MCINNES asked the Prime Minister if, in view of the fact that house building operations in England and Wales had now been placed under the control of the Minister of Local Government and Planning, he was prepared to consider the feasibility of establishing a Ministry of Building in Scotland which would take over and co-ordinate the functions at present carried out by the Department of Health and the Ministry of Works so far as housing and all other building work was concerned.

MR. ATTLEE replied in the negative. He said that before the recent transfer of functions in England and Wales, he considered with the Secretary of State for Scotland the position in Scotland and decided against any redistribution of functions. In Scotland, the responsibility for housing, local government and planning was already vested in the Secretary of State.

MR. MCINNES asked if the Prime Minister knew that the proposals in the question had the full support of the organised Labour movement and other organisations in Scotland, and that his reply would cause extreme dissatisfaction.

MAJOR GUY LLOYD asked if the Prime Minister would instruct the Secretary of State to rule out political prejudice in regard to the problems of the homeless in Scotland.

MR. ATTLEE said there was no question of political prejudice in this matter; it was a question of administration. The real difficulty was the well-known shortage of materials and the availability of labour. It was very largely a matter for the local authorities.

Carlton House Terrace

On February 8, MR. KEELING asked the Minister of Agriculture whether the Commissioners of Crown Lands were consulted about the proposal to add extra storeys to Carlton House-terrace and convert it into a new Foreign Office.

MR. T. WILLIAMS said that they were. The fullest consultation between the Commissioners of Crown Lands and the Ministry of Works had taken place since the inception of the scheme. The architect was instructed to prepare his plans on the basis suggested in the report of the Royal Fine Art Commission to the Commissioners of Crown Lands in 1945, and the Commissioners approved the plans for submission to the Royal Fine Art Commission in 1948.

MR. BOSSOM: When the Royal Fine Art Commission were asked about this, were they instructed that a certain capacity must be provided so that they had not the alternative of approving an improved design?

MR. WILLIAMS: They were not instructed on those lines at all.

BOOKS

PRACTICAL BRICKLAYING. By Adam Hammond. Pp. 116. (The Technical Press, Ltd.) Price 6s. net.

THE FIFTEENTH edition of this little book, which was written to assist young craftsmen and beginners and those who had not had the opportunity of gaining wide experience in the craft, has been brought up to date by Mr. William Frost, lately head of the L.C.C.'s School of Building's brickwork department, and many new diagrams have been added in the process. The geometry and mensuration are those generally required by the bricklayer, and it is probable also that the tables and quantities of materials will prove helpful to young craftsmen.

SPON'S ARCHITECTS' AND BUILDERS' POCKET PRICE BOOK, 1950-51. Pp xxi, 499. (E. and F. N. Spon, Ltd.) Price 15s. net.

WITH PRICES of raw materials and manufactured articles rising almost daily, and frequent upward adjustments in wages, any price list compiled nowadays must be out of date in some respects almost before the ink is dry on it. Nevertheless, a yardstick of trade rates and prices remains as necessary as ever, and once again the architect or builder will be grateful to have this renowned reference book by his side. As if 500 pages packed with useful information were not enough, the editors apologise for not being able to include a substantial new section on " constants," an omission which they feel confident they will be able to remedy in the next edition.

BOOKS RECEIVED

BUYING AND SELLING A HOUSE. By M. B. Evans. (London: Stevens and Sons, Ltd.) Price 6s. 6d.

" CONVERSION." Section 1 of Manual of Machine Woodworking. By Sydney Lister. (London: Lomax, Erskine and Co., Ltd.) Price 5s.

MECHANICAL WORLD YEAR BOOK, 1951. (London: Emmott and Co., Ltd.) Price 3s. 6d.

⁂ *Books reviewed in these columns may be obtained on application to the Publisher, " The Builder," 4, Catherine-street, Aldwych, W.C.2. Cash should accompany the order.*

THE TOWN PLANNING INSTITUTE

Need for Keeping the Costs of Development Within Reasonable Bounds

PROBLEMS involved in estimating the cost of the West Hartlepool Plan were described by Mr. A. Limon, F.I.M.T.A., Borough Treasurer of West Hartlepool, when he addressed the Town Planning Institute on the costs of town development in London on February 1. The keynote to MR. LIMON'S address was contained in his opening remarks that his overwhelming impression was the necessity for the exercise of restraint in the preparation of such plans. He knew that borough treasurers had the reputation of being very cautious men who looked with disfavour on any and every project involving the expediture of public money, but he hoped to demonstrate the reasonableness of his conclusion by showing the effect on the population, both in their capacity as ratepayers and owners and occupiers of property affected by development plans and also by referring briefly to the national situation in which we found ourselves, of such schemes.

West Hartlepool had a population of about 72,000 and its chief defect lay in the fact that in a large area in which the town's development started, and which was no longer the town's geographical centre, there was a congested mass of buildings of all kinds, i.e., houses, shops, warehouses, workshops, etc. Development took place extremely rapidly in a very haphazard sort of fashion and the buildings generally were of a fairly low standard, said Mr. Limon.

Now, after 75-100 years of existence, many of the 25,000 houses were blighted and, quite apart from the Town Planning Act, would have been replaced under the Housing Acts. The gross density expressed in persons per acre was about 100. This central area, which comprised 130 acres, contained what might be called the shopping centre of the town. It is contended that as a shopping centre this was far from ideal because of the distance which has to be traversed from one part of the shopping centre to another and also because it is situated on the outskirts of the town and in close proximity to the entrance to the docks.

The county borough also included a small seaside resort named Seaton Carew. This possessed many natural advantages but had been developed only to a very slight extent.

"I do not need to deal in detail with the remedies which are proposed in the plan. They follow, with but slight modification, the lines prescribed by Mr. Max Lock and described at length in his book, *The Hartlepools—A Survey and Plan*," said Mr. Limon.

"The plan, as submitted, laid down three areas of comprehensive development. Two of them can be dismissed in very few words because they met with general acceptance by all concerned. One of them related to Seaton Carew, the small resort I have mentioned, and only an insignificant area of land was to be acquired.

"The second was an area of 210 acres which the Council has acquired on the outskirts of the town and which, together with a further 200 acres situated outside the borough boundary, is at present in process of being developed as a neighbourhood unit. It was not mentioned during the course of the Inquiry and has no particular bearing on my subject.

"The third proposal related to the central area which I have described and it was against this part of the plan that opposition was concentrated. The area of comprehensive development was 150 acres in extent.

"Briefly, for the congested area, it is proposed to effect a drastic change by reducing the number of people housed in the area from 10,000 to 4,000 and by using a large part of the land so cleared as the sites for educational and civic buildings," Mr. Limon continued. "The most revolutionary proposal, however, was the removal of the main shops from the present widely dispersed shopping streets and their re-establishment in a more central and accessible position on 18 acres of land included in the comprehensive development area for that particular purpose."

"True" Cost of Development

On the definition of cost, Mr. Limon said that in some quarters it was considered that the cost of development included the cost of new schools, new houses, public buildings of all kinds and such items as the widening of existing roads. "In my view, this is entirely incorrect and is apt to present a most distorted picture of the 'true' cost of development. All local authorities are committed to the task of building new schools and new houses and there cannot be the slightest doubt that these factors, at any rate, should be excluded when computing the cost of development," said Mr. Limon. "The position regarding public buildings is almost equally clear. Local Councils are not likely to decide to erect public buildings at a very substantial cost merely because the situation in which they are to be built is indicated on a plan. They will be guided, plan or no plan, by the necessity for these buildings for the carrying out of their functions.

"Broadly speaking, therefore, I would regard the true capital cost of town development as being the amount paid for the acquisition of land and buildings, compensation for removal and disturbance, the demolition of buildings and the provision of the necessary roads and sewers.

"I regard the plan which the Council have put forward as a framework into which the town's natural and inevitable development will fit."

Mr. Limon then gave the following figures of estimated capital expenditure, as prepared for use at the time of the Ministry of Town and Country Planning's inquiry into the scheme:—

	£
Central Area	
Purchase of land and compensation for removal and disturbance	1,487,000
Demolition of buildings	51,000
Construction of roads and sewers ...	265,000
	£1,803,000
Deduct value of land utilised for other municipal purposes, e.g., housing, education, civic buildings, etc.	88,000
	£1,715,000
Seaton Carew	
Similar estimates for the area were made and the net cost, including £34,000 for acquisition of land, amounted to a total of	£65,000

The total estimated capital expenditure for the two areas of comprehensive development was thus £1,780,000. The only other expense directly attributable to town development was the construction of a new cross town road and the improvement of the main north-south road and this cost was estimated at £300,000.

In round figures, the estimated capital cost was £2,000,000.

Meeting Capital Expenditure

The speaker continued: "How, you may ask, does a town of 70,000 inhabitants with a rateable value of £420,000 propose to find this astronomical sum? The answer, as you all know, is by borrowing it either by means of a stock issue or on mortgage. Incidentally, the present loan debt of West Hartlepool is about £2,800,000 for all other purposes and this represents £38 per head of the population. It is usual nowadays for local authorities to obtain their loans from the Public Works Loan Board. This body, in its turn, is kept in funds by means of the money lent by investors in certain Government securities.

"You might well ask whether this supply of money is so inexhaustible as to be sufficient to supply not only the money required by all the local authorities who will be carrying out development works in the future but also the vast sums which they will need for new schools, new houses and all the rest of the municipal services. I can only say this, that local authorities have never yet failed to obtain the money they have required to finance their capital expenditure and they have never been known to default in the payment of interest or in the repayment of principal. If, for any reason it becomes impossible to obtain loans sufficient to cover the vast expenditure to be incurred during the next decade, then this capital expenditure will need to be very considerably curtailed."

The next task was to convert this capital expenditure into terms of annual expenditure and ultimately into rate poundage, for which purpose the following assumptions were made:—

Period of implementation ...	40 years
Expenditure in each year ...	1/40 of total
Rate of interest	3 per cent
Rate of Grant	{ 80 per cent. for 5 years { 50 per cent. for 55 years
Loan periods—	
Purchase of land ...	60 years
Demolition	60 ,,
Roads	20 ,,
Sewers	30 ,,
Rate product	£1,700

Ground rents receivable, maximum of £10,000 per year

After making all the necessary calculations, the following position was revealed:—

	£
Total loan charges for 100 years	3,624,000
Less ground rents for 100 years	805,000
	2,819,000
Less Government Grants for 100 years ...	1,296,000
Charge on rates for 100 years	1,523,000

Basing his evidence on these figures, Mr. Limon gave the annual cost of the scheme as being an average annual charge on the rates of £15,000 which is equivalent to a rate of approximately ninepence in the pound, or the present rate of poundage for the public lighting.

Dealing first with the question of whether the cost of town development would place a burden on the ratepayers which they would find it impossible to bear, borough treasurers for many years past had tried to gauge what was known as the "rateable capacity" of the population. In other words, they had

tried to estimate just how much the ratepayers would "stand." Needless to say, no answer had been found to this question. "I think it would be generally accepted that rate poundages all over the country are bound to go up during the next ten—20 years by possibly 10s. in the pound," Mr. Limon continued. "They will, of course, advance by gradual stages and though I am not suggesting that such increases will pass unperceived, I do think that a gradual increase is an important factor in the situation." Bearing in mind the other services which were bound to need additional money during the next 10-20 years, notably education and housing, he suggested that the cost of town development should be so spread over this period that the charge on the rates in any one year was kept to a maximum of 1s. in the pound, which, in his view, was a reasonable figure.

New Tradesmen's Premises

On the question as to whether tradesmen could afford the cost of erection of new premises in the shopping centre, Mr. Limon said this depended to a very large extent on whether they would be called upon to vacate their existing premises before their economic life was at an end. The extent of their loss would depend on factors such as the unexhausted life of the old building, the compensation received, the volume of business done in the new shopping centre and the annual expenses incurred. It would probably be found that it was necessary for the Council to erect a certain number of shops for those tradesmen who could not find the money to build their own.

It should be borne in mind when considering this problem that the tradesmen concerned would probably have strong and rooted objections to moving their businesses at all, and would therefore tend to exaggerate the financial difficulties with which they might be confronted. "It would again seem to me that restraint should be the watchword in dealing with this difficult problem," Mr. Limon continued.

As to the national situation, he thought it was generally agreed that, apart from the question of peace or war, the most important issue facing the country at the present time was the necessity to increase production, and this should be the yardstick which should be applied when measuring the desirability of embarking on substantial schemes involving public expenditure. On the debit side one must set the possible diversion of labour and materials from productive enterprise which the implementation of a plan might entail. In the second place, expenditure by the State and by local authorities brought in its train increased taxation which might lead to a loss of incentive to maximum effort on the part of both employers and workers.

On the credit side might be set certain improvements to communications which would ensue from the carrying out of plans and this might tend to assist production. Secondly, it might be argued that town development would tend to promote the contentment and happiness of the public and thus stimulate a desire to exert extra effort.

"On the subject of government grants," continued Mr. Limon, "it has struck me rather forcibly that there has been an absence of guidance from the Ministry as to the extent of development which they are prepared to approve. Far be it from me, as a local government officer, to advocate an increase in the control exercised by the central government over local authorities, but bearing in mind the national situation one would have thought that some pronouncement on the degree of priority which it was proposed to accord to schemes of development during the next 10-20 years would have been issued. For example if only those towns which suffered severe war damage are to be allowed to rebuild during the forseeable future, then it would be of assistance if a statement to that effect could be made.

"There would appear to be a danger that if an avalanche of ambitious plans are unloaded on the Ministry this year and their aggregate cost assessed, it will be found quite impossible to carry them out and the whole process will either have to be started afresh or it will be decided that wholesale town planning is a luxury we cannot afford. Either of these possibilities is most disturbing to contemplate.

"Here again it seems to me there is an indication of the desirability of self restraint, always more palatable and healthy than enforced restraint."

Discussion

In the discussion that followed, MR. MAX LOCK (who was largely concerned with the design of the development plan for West Hartlepool) said the main question which arose was whether a policy of continuous renewal was a good investment or a waste of money. Here we were not considering such a project as a new town but considering putting into good shape an existing mechanism which, due to the neglect of our ancestors and ourselves, had fallen into a state of decay which was dangerous.

The argument put forward at the public enquiry by counsel that it might be that the Hartlepools had had their day and therefore nothing should be spent upon them was proved to be entirely false by figures which showed the remarkable way in which the strength of the town had increased since the plans were made four years ago. The planners had estimated that the population would not grow to more than 70,000 during that time but in fact it had increased to 72,500.

Increased production was, after all, the real end of town planning—to make more efficient towns and he believed it was true that some of our cities which were allowed to grow up early in the Industrial Revolution must be renewed or they would succumb to the crippling competition from better equipped towns at home and abroad. He was glad to say that the Hartlepools and other development areas were receiving good equalisation grants which helped to put them on their feet again.

But having embarked upon reconstruction he thought the most important thing was good estate management. The persons to whom were entrusted the responsibility of steering development into the right plane could save tens of thousands of pounds if they set about their work in the right way and were given enough scope for initiative.

Here was a town where there was no alternative but to move the shopping centre. On the plan the old part of the town was like a big nose sticking out of a face and the existing shops were concentrated in the tip of the "nose." The plan was later on to build new shopping development within the rest of the face, so to speak. The shopkeepers would naturally find it more economical to repair their old property than to build entirely new premises. He suggested West Hartlepool Council should consider leading the way in establishing a new shopping centre by putting up some shops themselves. This might encourage others to follow.

Mr. Lock then put forward what he called the three fundamentals of the problem of urban resources (he was referring to the planning of large towns and what we now call "conurbations"). He was not sure that resources were really available within the framework of local government as it was to-day. He was thinking particularly of urban areas like non-county boroughs which contributed a large percentage, say two-thirds, of their rates to the county. They had no resources to contribute to dealing with the overspill from county boroughs. He referred to the crippling expense of carrying out reconstruction where it was most needed and suggested for such areas as Plymouth, Portsmouth, Birmingham and Manchester a system of two-tier government which could give the whole area unity for planning without depriving any part of its autonomy.

Another field in which we should have to exercise a great deal of thought was the rationalisation of the building industry, in regard to site methods. At present a great deal of wastage took place with uneconomical methods of building. There must be more output from the men. The building of a house to-day took two man-years, whereas before the war it took only 1.2 man-years. These things must be tackled if town renewal at the very low rate of a shilling in the pound was to be continued. We must ask ourselves whether a shilling rate was too much to pay for a healthy environment.

Replying to the discussion, MR. LIMON said he agreed very strongly with Mr. Lock that a corporation like West Hartlepool should erect some new shops at an early stage in the new town plan. He made the point that in erecting certain public buildings local authorities could take advantage of Acts such as the Housing Acts, the Education Acts and others, and it was for borough treasurers when considering the implementation of new town plans to consider under which Act it would be the wisest to proceed, having in mind the amount of grant available in each case.

OBITUARY

W. A. Harvey, F.R.I.B.A., M.T.P.I.

Mr. William Alexander Harvey, a former architect to the Bournville Village Trust, a founder member of the Town Planning Institute and a Fellow and Examiner of the Royal Institute of British Architects, has died at his home Hagley-road, Egbaston, Birmingham, at the age of 76.

Mr. Harvey, who was born in Birmingham, was educated privately, and studied in Italy, Spain, Germany and America. He became architect to the Bournville Village Trust in 1895, and was appointed consulting architect in 1902. He was a member of the R.I.B.A. Council and Science Standing Committee, and was president of the Birmingham and Five Counties' Architectural Association from 1917 to 1919.

In 1934 he was awarded, with his partner, the R.I.B.A. bronze medal, and in 1936 won the R.I.B.A. Distinction in Town Planning. He was chairman of the Town Planning Institute (Midlands branch) in 1947, a Fellow of the Royal Society of Arts, vice-president of the Royal Society of Artists, and a member of the Birmingham Advisory Art Committee. His publications included "The Model Village and its Cottages."

PRESTRESSED CONCRETE ROADS

Experiments at Crawley New Town

THE manifold applications of prestressed concrete in the structural field have overshadowed its possible use in runway and road construction. Nevertheless, consideration of the possible use of prestressed concrete in road construction shows that it can have advantages, provided that the cost can be made comparable with normal construction costs. The advantages are the elimination of cracks, and the reduction in number of expansion joints, which in turn leads to improvements in riding quality and reduction of maintenance costs. There are of course disadvantages, such as the difficulty of reinstatement, which limit the probable use of prestressed concrete roads to non-urban areas, and the possibly complicated nature of expansion joints if the bays are very long.

The design of the road as laid down was based on discussions between the chief engineer of the Crawley Development Corporation, the Prestressed Concrete Co., Ltd., the Road Research Laboratory, and the County Surveyor, West Sussex.

Main Features of Design

The present trend in concrete road construction is to limit the number of expansion joints. There would be no appreciable advantage gained in constructing a short length of slab, and a maximum length of 400 feet was decided upon as suitable in view of the uncertainty as to the value of frictional restraint.

The amount of prestress to be used was the greatest problem in the design, as the amount of information available on the subject is small and inconsistent. For reasons of economy it was desired to limit the prestress to the smallest value consistent with the subgrade restraint expected. The problem of the subgrade restraint is most difficult, as little information is available, and it is hoped that this experiment will assist in the matter. It was finally decided that the coefficient of friction would probably lie between 0.25 (0.23 estimated for Orly runway) and 0.50 (estimated by the Road Research Laboratory). The effect of this assumption is that for a length of 400 feet of road, assuming the ends of the road to move relative to the centre, the subgrade restraint will represent a decrease in prestress of between 50 and 100 lb. per sq. in.

Therefore, by using a prestress of 200 lb. per sq. in., a residual prestress would remain of at least 100 lb. per sq. in. The stress, though not sufficiently high to prevent cracking from taking place under load and temperature strains, should be sufficiently high to ensure that cracking is momentary.

Freyssinet-type cables were used, consisting of 12 0.2-in. diameter high-tensile steel wires grouped round a 16-gauge mild-steel wire core helix. The cables were aligned at an angle of 3 to 1 to the line of the road in diamond pattern at 7 ft. 6 in. centres. At each end of the 400-ft. bay the cables were curved to anchorages in the side haunch to avoid having anchorages in the carriageway at the ends of the slab.

Previous prestressed road construction indicated that a depth of slab of 6 in. was sufficient to withstand loads in excess of normal road loading. To accommodate the cables, which are 1¼-in. diameter, and which have to cross at different levels in the slab, it is impossible to reduce the depth of the slab below 6 in. and yet obtain a reasonable cover over the cables. The depth of slab was thus fixed at 6 in.

Problems of Construction

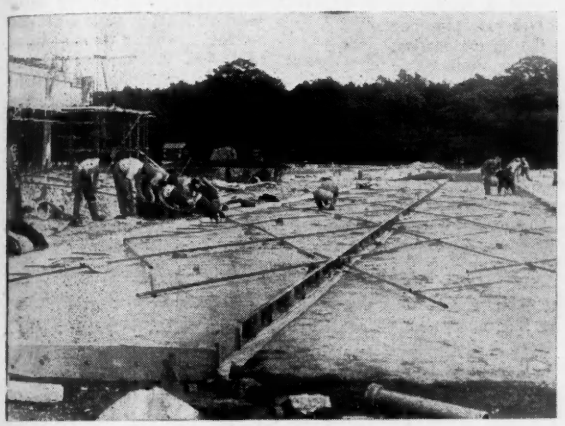
To reduce construction costs it was decided to use a sub-base of 4-in. clinker instead of the 4-in. rolled lean concrete sub-base used in normal reinforced concrete road construction on this site.

In view of the high frictional resistance of such a sub-base, however, a thin layer of sand was spread and rolled on the clinker before laying waterproof paper. The sub-base was drained by 3-in. tile drains laid on each side of the carriageway and connected to gulleys.

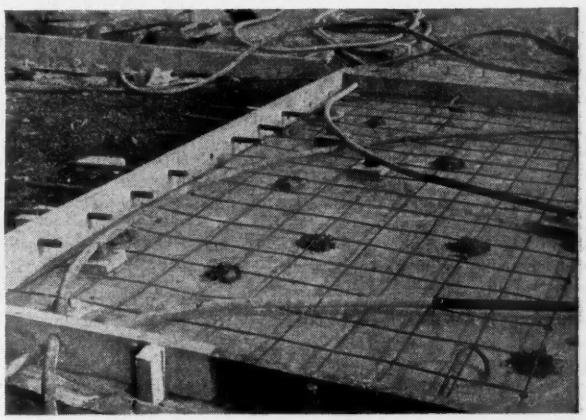
It was decided to fix the anchorage cones in concrete haunches constructed independently of the main slab. The reasons for this were to enable the anchorage cones to be embedded in high-grade concrete, and to facilitate the speedy construction of the main slab. The haunches were 12 in. wide and 6 in. deep, running the full length of the road on each side of the carriageway. They were tied to the main slab with ½-in. diameter mild-steel bars. The concrete mix used was 3.9:1 by weight, with a water-cement ratio of 0.40.

Following the completion of the haunches, the 12-wire Freyssinet cables were threaded through the 18-ft. lengths of sheathing and placed in position supported at 6-ft. intervals by small concrete blocks. Joints in the sheathing were sealed by adhesive tape. In the case of the curved cables, holes were preformed in the concrete by means of "ductube," which was supported by the short length of fabric reinforcement at the ends of the slab and the cables drawn through after concreting was completed.

After the placing of the sheathed cables or "ductube," the concreting of the main slab followed in accordance with the normal practice. A central construction joint enabled the slab to be laid in four operations, the size of each day's work being 200 ft. x 12 ft. Slabs were linked together across the central longitudinal joint by ½-in. diameter tie-bars and across the transverse construction joint by a short length of fabric reinforcement.

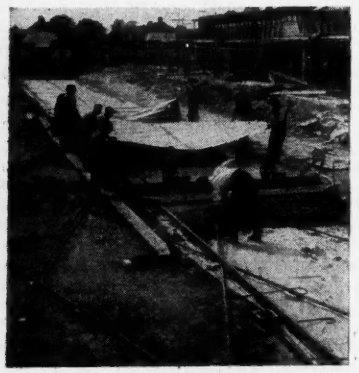


Inserting the high-tensile steel wire cables in the protective sheathing



End of road section, showing dowel bars, reinforcement and "ductubes"

Form work for concrete haunches showing female cones and cable sheathing in position



Concreting of main slab and curing following up

Stressing of the cables was carried out about three weeks after concreting the main slab. Four jacks were used, and it was found necessary to use a jack at each end of each cable. The elongation of each wire corresponded to a stress of 80 tons per sq. in., the minimum 0.1 per cent. proof stress of the wire being 82 tons per sq. in.

On completion of the stressing the cables were injected with clean water under pressure and grouted up with neat cement grout. After this operation the anchorage cone recesses in the haunch side of the road were concreted up.

Measuring expansion

In view of the difficulty of calculating the actual expansion of the 400-ft.-long prestressed bay with an unknown subgrade restraint, it was decided to place a short expansion bay 5 ft. in length at each end, consisting of hardcore surfaced with tarmac, incorporating a 2-in. thickness of expansion jointing material. Measurement of the actual expansion will show whether the degree of expansion will be sufficiently small to enable the use of a normal joint.

Fixed points have been established along the sides of the road which will enable the exact measurement of movement, and strain gauges have been concreted in the slab itself from which it is hoped to determine some information with regard to the strains within the concrete under stress. These investigations are being carried out by the Road Research Laboratory.

The work carried out has already been of great value from the practical point of view, and a number of constructional difficulties have been observed which can be avoided in the future. The lessons learnt from the work will not be fully appreciated until the measurements of movement and strain have taken place over the course of a year or so, and these results will be published in due course.

A Library on the Move

Built 40 years ago on the frame principle so that it could be lifted by hydraulic jacks if necessary and moved to another position, Northwich Brunner Library has moved nine inches during its existence in the direction of the main road. It is estimated that at this rate of progress it will take nearly 850 years before it would reach the main building line of the roadway. The building shows no indication of any "wear or tear" consequent on any strain.

CODES OF PRACTICE

Internal Coverings and Rigid Infillings

THE Council for Codes of Practice for Buildings has now issued for comment Sub-codes 124.301, 124.309 and 124.401, "Timber Coverings (internal), Cork Slab Coverings (internal) and Rigid Infillings for Framed Partitions," prepared for the Council by a committee convened by the Incorporated Association of Architects and Surveyors. This document consists of the three sub-codes named above, each of which should be read in conjunction with Code 124, "Walls and Partitions of Framed Construction (external and internal)."

The first sub-code contains a list of various suitable types of timber with notes on quality, moisture content, fire retardants and materials for joint treatment, and gives information on sizes and weights, together with recommendations on fixing accessories. The design section refers to the main Code 124 for details of the characteristics of timber coverings as regards sound insulation and absorption, fire resistance and combustibility and thermal properties, but includes information on strength, stability and resistance to impact of boards of various thicknesses. Recommendations are made regarding the avoidance of crack formation, dimensional standards, efficiency and economy, provision of services and fittings, and method of fixing and joint treatment. Information on preparation off site and packing is given, together with full details of the various stages and methods employed in the actual fixing of the coverings.

The second sub-code deals similarly with the requirements for, properties of, and methods of using, baked cork slab coverings, and also gives sound insulation values, sound absorption coefficients and thermal transmittance values of cork slab covered partitions. Sub-code 124.101, "Rigid Infillings," the third code in this document, deals with rigid infillings to partition frames of timber, metal or reinforced concrete, of brickwork, clay and concrete blocks, hollow glass blocks, wood-wool building slabs, baked cork slabs and dense concrete cast-in-situ. The main advantages of using a framed partition with a rigid infilling are set out, and information given on the relationship between the frame, infilling, and covering (if any), avoidance of crack formation, strength, stability and resistance to impact, coverings, and fixing the infillings.

The code is in draft form and is subject to amendment in the light of comments which should be submitted by February 24 next. The draft carries the usual warning that, during the present abnormal conditions, it may not be possible to carry out all the recommendations. Copies of the Code may be obtained from the British Standards Institution, 24-28, Victoria-street, London, S.W.1, price 5s., reference CP (B) 986.

Draft for Comment Issued on Walls and Partitions

THE Council for Codes of Practice for Buildings has issued as a draft for comment Code 122, "Walls and Partitions (Blocks and Slabs)," prepared on their behalf by a committee convened by the Incorporated Association of Architects and Surveyors. This code consists of a main part and five sub-codes. The main part covers all aspects common to the different types of construction dealt with in detail in the sub-codes. These sub-codes are 122.101, clay blocks and concrete blocks; 122.102, hollow glass blocks; 122.103, wood-wool building slabs; 122.201, gypsum or anhydrite block; 122.202, plasterboard-and-plaster, solid construction.

The main part makes recommendations or gives information on the following matters:

General: Exchange of information between contracting parties; time schedule.

Materials, Appliances and Components: Types of materials and components, including blocks and slabs, mortars, permanent supports, reinforcement, scrim, damp-proof courses, flashings, air-bricks, and gratings; relevant British Standards.

Design Considerations: General considerations affecting choice of materials. Fundamental characteristics, in tabular form where appropriate, including sound-absorption co-efficients, fire-resistance gradings and thermal transmittance values. Avoidance of crack formation. Mixing proportions for mortar; limitations to intermixing. Treatment of damp-proof courses; finishing of joints; formation of vent ducts; design of copings. Treatment of openings; design of frames for doors. Provision for services. Discontinuous construction.

Work on Site: Sequence of operations. Handling and storage of materials. Scaffolding. Preparation of lime putty; mixing and transit of mortars. Construction of sills and lintels; fixing door and window frames. Laying damp-proof courses.

Inspection and Testing: General points to be looked for when inspecting the work.

Appendices: Specifications for hydraulic quicklimes and hydrated hydraulic quick-hardening limes.

The sub-codes amplify and supplement the general recommendations given in the main part. Each sub-code deals fully with the various aspects of a particular type of construction. The sizes and weights of blocks recommended for use are detailed in each sub-code, and notes are given on any other specific properties of the particular type concerned and on the actual construction and fixing of the wall or partition.

At the end of the Code a number of illustrations show methods of edge isolation, reinforcement over openings, treatment of permanent supports and various constructions of hollow glass blocks, wood-wool building slabs, anhydrite blocks and plasterboard-and-plaster.

The Code is in draft form and is subject to amendment in the light of comments which should be submitted by March 5 next. The draft carries the usual warning that, during the present abnormal conditions, it may not be possible to carry out all the recommendations.

Copies of the Code may be obtained from the British Standards Institution, 24-28, Victoria-street, London, S.W.1, price 9s., post free, proof reference CP(B) 984.

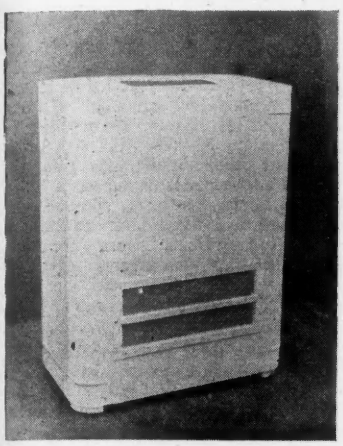
R.I.B.A. Form of Contract

In the 1950 edition of the R.I.B.A. Standard Form of Contract, amendments have been made to clauses 11, 14 and 15 which deal with indemnities and insurances. The N.F.B.T.E. states that these amendments are textual only; and no alteration of principle or of the allocation of responsibility between employer and contractor is revealed.

THE MIDLANDS BUILDING EXHIBITION

THE following is a review of some of the builders' equipment, appliances and general material which are on show at the Midlands Building Exhibition, now being held at Bingley Hall, Birmingham. The exhibition is open until February 24.

Air Control Installations, Ltd., are showing their Rotoclone self-contained unit, a dust control system suitable for the collection of fine granular dust from brick, tile and masonry saws and grinding machines; two types of air conditioning unit—a winter air conditioner for hospitals, schools, shops,



Air Control Installations' winter air conditioner

assembly halls, etc., and a type KD "Bungalow" unit, which has been specially fitted with transparent panels and will be internally illuminated; and several types of fan for air extraction, ventilation and general industrial and domestic purposes. [Stand No. 54.]

A range of "Aga" units for domestic use is exhibited by **Barrow's Stores, Ltd.** There is a model "CB" "Aga" cooker embodying a boiler for domestic hot water, which can be demonstrated to visitors. Another domestic boiler on show is the "Agamatic" which is automatic in operation. It is suitable for medium loads either of hot water or central heating, or for small installations or a combination of both. [Stand No. 67.]

"Agamatic" domestic boiler

The chief exhibit of **F. H. Bourner and Co. (Engrs.), Ltd.,** is the "Y" model Supatap. This model is available in bibcock and basin pillar patterns and is fitted with plastic earpieces which can be obtained in black, cream or pastel shades to match interior decoration. [Stand No. 41.]

Four timber machines are displayed by the **Building Material Supply Stores, Ltd.** The Multico multi-purpose sawing machine for timber ripping, cross-cutting, mitreing, drilling and boring, mortising, rebating, grooving and tile cutting, steel cutting, slate cutting, asbestos cutting; the Multico planer for planing up to 6-in. timber and rebating 3 in. x ½ in.; the Multico bandsaw for cutting metal, and wood up to 6 in. deep. It is fitted with tilting table and illuminated saw blade; the Multico senior saw bench for cutting timber up to 4½ in. thick, cross-cutting, rebating, grooving, splay cutting, mitreing, and tenoning. [Stand No. 87.]

T. J. Cooke and Son, present a wide range of lock furniture including examples of stamped brass lock furniture which can be obtained in nine sizes, four qualities and in several finishes. A display of Capro plastic door knob furniture is also shown. [Stand No. 30.]

J. K. O. Cutters, Ltd., are exhibiting the Electro Tempo automatic feed attachment for conversion of spindle moulders, saw benches, overhead planers, routers, etc., into semi-automatic machines; the Vertiko woodworking machine which enables many operations to be carried out on ends of timber, including tenoning, scribing, haunching, straight and dovetailed cross-housing for shelves, corner locking for boxes and also mitreing; radiusing and shaping ends of rails, etc. They are also exhibiting their full range of woodworking cutters. [Stand No. 95.]

Eight different machines are being shown by **Danckaerts Woodworking Machinery, Ltd.** These include an 18-in. cross-cut saw fitted with a vee belt drive by standard motor, a 20-in. rising table saw bench, an overhand planer with 8 in. tables supported on widely-spaced slides, a thicknesser, spindle moulder, hollow chisel mortiser, vertical belt sander and double drum sander. [Stand No. 57.]

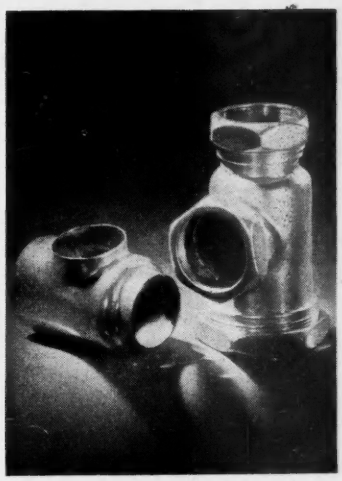
A combination sharpener for edge tools, and glass cutter is exhibited by **R. J. Deaves.** The improved glasscutter can, it is claimed, cut tiles and plate glass of varying thicknesses and continuous demonstrations are given during the exhibition. [Stand No. 97.]

A varied range of fencing is exhibited by **Durafencing, Ltd.** Their new flower wall which can be assembled from precast concrete parts and the universal concrete fence posts form the main part of this exhibitor's display. There is also a Firemaid continuous burning fire on view and a number of other fireplace castings. [Stand No. 42.]

Easiclene Porcelain-Enamel (1938), Ltd., display a range of planned equipment for kitchen and bathroom. Included is the "Princess" series of sink units in porcelain-enamel on pressed steel. The "Duchess" series of sink units in stainless steel, single and double drainer models, is also shown. The anti-drip drainer has been redesigned in two sizes of white porcelain enamel and is shown in the kitchen where a full-size sink unit cannot be accommodated. For the bathroom, wash-hand-basins in porcelain-enamel and stainless steel are exhibited, also the modern-styled white porcelain-enamel low level flushing cistern. [Stand No. 33.]

Econa Modern Products, Ltd., are showing a range of tubular copper traps and waste fittings and a preformed soil waste and vent installation for blocks of flats and private houses. [Stand No. 80.]

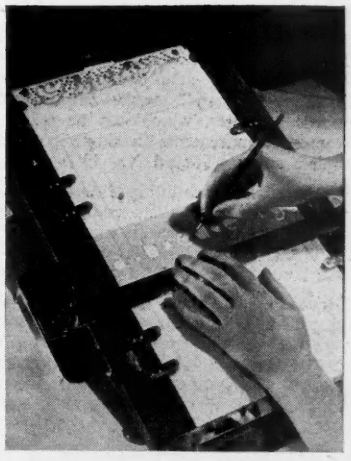
The exhibit of **Expandite, Ltd.,** is Seelastik which is claimed to be a water-proof and air-tight sealing compound for joints between any combination of building materials. It is further claimed that it adheres to dry surfaces, and when set remains resilient and does not become brittle or fall out. [Stand No. 96.]



"Econa" tubular copper waste fittings

An exhibit of sectional steel panelling is displayed by **Frank R. Ford, Ltd.** This Fordirect panelling is manufactured on the unit principle, and can be used to partition off any given area into offices, stores, etc. Extensions can be made, panel by panel. This partitioning is supplied in standard panels to a height of 7 ft., and can be obtained in steel or steel and glass. A range of Fordigraph spirit process duplicators is included in the exhibit. [Stand No. 48.]

The **Gestetner, Ltd.,** exhibit presents a range of duplicators and duplicating equipment and accessories. A special feature is the new hand-operated model 120, designed for the smaller office needing a machine for comparatively short runs. This model can accommodate paper up to 8¾ in. by 14¾ in. The principal exhibit is the 160 Express Inker, which is streamlined and silent. There is an automatic counter which stops the machine when the required number of copies has been reproduced and the inking is controlled by a lever. There are also adjustments for speed and position of work on



"Gestetner Scope" being used with lettering guide and stylus

paper. The series of duplicating accessories include the Gestetner Scope for drawing, ruling and tracing on stencils in conjunction with the special Gestetner wheel and stylus pens and lettering guides. Demonstrations of the Gesteprint office process, a photographic stencil-making outfit, are given. [Stand No. 28.]

Glazebrooks, Ltd., are showing a sample of Permoglaze applied to various surfaces—brick, plaster, cement, wall boards, woodwork, ironwork, aluminium, etc. Examples can be seen of the various standard grades of Permoglaze including interior gloss finish, eggshell finish, matt finish, exterior gloss finish, machine finish, floor dressing and swimming pool dressing, as well as a recently introduced grade called "Permoglaze emulsion coating (satin finish)" for direct application to absorbent surfaces—interior and exterior.

The various colour schemes shown by the Permoglaze decorative service are also displayed. [Stand No. 85.]

A series of exhibits by **Gyproc Products, Ltd.,** illustrate the use, adaptability and properties of their range of fire-resisting building materials. Included are the Gyproc wall and ceiling board, lath and plank. A range of Gypsum plasters are shown applied in conjunction with the various Gyproc products and systems, together with acoustic tiles, suspended ceilings and acoustic plaster for sound reverberation correction. The unit construction products and systems include the Gypstele system of wall linings, partitions and ceiling constructions: Plaxstele suspended ceilings, laminated partition slabs, and their 24-in. solid partition. [Stand No. 25.]

J. Halden and Co., Ltd., are showing an extensive range of equipment for the drawing office and print room. The new "Mercury" photo copying frame is one of the main features and is demonstrated in conjunction with the "Ferazo" rapid blue print process and various Dyeline processes. Equipment for developing prints by these processes can be demonstrated throughout the Exhibition. The "Craftline" plan filing cabinet showing the latest design on modern drawing office furniture will also be exhibited, together with a comprehensive range of scales, protractors, inks and other sundries, including the Calculex slide rule and the "Halco" plan binding machine. [Stand No. 93.]

Rowland Hartrick, Ltd., are displaying "Lush" theatre seating and hotel and restaurant furniture, which is available in wooden or tubular metal construction. They also supply "Lush" lounge furniture for domestic purposes, which can be made to customers' requirements in single pieces or complete suites. [Stand No. 99.]

B. Heyman, is exhibiting a patented wall-patterning device for plain coating, printing designs in paints, distempers or plastic paints on ceilings, walls or similar plain surfaces. [Stand No. 18.]

Hickson's Timber Impregnation Co., (G.B.), Ltd., is showing displays appertaining to the pressure impregnation of timber with "Wolman" "Tanalith" wood preservative. Both the preservative and the treatment are used in railway sleepers, mining timbers, cooling tower louvres and all types of building constructional work. The exhibits on their stand will consist of a model vacuum and pressure impregnation plants, a display panel outlining the essential features of dry rot, and another display panel illustrating the uses of "Tanalised" timber to the building industry. For the purpose of protecting timber already in position which has been attacked by wood-destroying insects, a new product named "Tanexol," which is a brush-on preservative, is shown. [Stand No. 59.]

Examples of stippled sandfaced facing bricks, made in various colours, are exhibited on the stand of **J. Jackson & Sons (Bricks), Ltd.** [Stand No. 34.]

Jones & Sturdy, the Midland distributors of A. T. Morse, Sons & Co., Ltd., have on view paints and distempers for different uses, together with Belsheen satin finish enamel and decorators' gloss paint. [Stand No. 82.]

The stand of **Kwikform, Ltd.,** exhibits standard patented formwork with sections of "No-Fines" concrete, with particular emphasis on the adaptability of this formwork to "No-Fines" house construction. Enlarged photographs show the whole story of construction and adaptability of this equipment. The company is also showing a patented cavity block system. [Stands Nos. 15 and 16.]

H. S. Langton is showing a display of Ace extension ladders, in two and three sections, which are made with hickory rungs, telescopic folding scaffold trestles, and builders' steps and trestles. [Stand No. 38.]

Examples of "Colourphalt" coloured asphalt flooring will be shown by **The Limmer & Trinidad Lake Asphalt Co., Ltd.,** together with other applications of decorative flooring, including the "Semastic" tile. Information can be obtained concerning the application of Trinidad mastic asphalt for roofing, flooring, dampcoursing and tanking work. Visitors can inspect examples of heavy duty floorings for factories, breweries, railway platforms, loading banks, etc. Acid-resisting asphalt will also be shown with enlarged photographs descriptive of recent contracts carried out by the company. [Stand No. 64.]

The Midlands Electricity Board are providing visitors with an opportunity to inspect a wide range of modern domestic electrical apparatus, including radio, television, electric cookers, refrigerators, washboilers, washing machines, storage heaters and small appliances. The staff at the stand can give information and advice on all electrical matters, including installations. [Stand No. 56.]

To those interested in the propagation of insurance ideas, an interesting stand is that of the **Midland Employers' Mutual Assurance, Ltd.** M.E.M.A. is the official insurance company for a number of building trade organisations. The stand displays advertising matter relating to employers' liability insurance which carries a no-claim bonus scheme and motor and commercial vehicle policies which allow up to 33⅓ per cent. no-claim bonus. Advice is also given on all insurance matters. [Stand No. 61.]

The Midland Federation of Building Trades Employers covers some 10,000 square miles, comprised in Warwickshire, Nottinghamshire, Staffordshire, Worcestershire, Leicestershire, Northamptonshire, Rutland, Lincolnshire, Derbyshire and Shropshire. Affiliated to the Federation are 46 local Associations, and the Federation is itself affiliated to the N.F.B.T.E., which advises the Government of the day on all matters affecting the employers' side of the industry, and is officially represented on all Government Committees dealing with building industry matters. This organisation has formulated and is administering bursaries in connection with the Midlands Building Exhibition. [Stand No. 101.]

The Midland Federation of Brick & Tile Manufacturers show over fifty different types of bricks, including facings, commons and engineering bricks, which are displayed in panels, walls, piers, etc., together with several types of roofing tiles and two briquette fireplaces. The floor of their stand, which has been designed by Philip Skelcher & Partners, L.&A.R.I.B.A., is composed of quarries. [Stands Nos. 69 and 70.]

The work of young apprentices studying painting and decorating at schools of arts and crafts will form part of a special display being organised by the **Midland Region of the National Federation of Master Painters and Decorators.** Work by apprentices attending thirteen different colleges and schools in the midlands region will be exhibited and includes examples of lettering, graining, colour treatment, sprayed texture, writing and heraldry. A separate section is devoted to examples of work submitted for the Institute of British Decorators' examination and there is a large selection of work from the painters' and decorators' national exhibition. [Stand No. 23.]

Two of the three machines displayed by **Midland Saw and Tool Co., Ltd.,** are available for demonstration. The standard midsaw universal woodworker is a saw bench, planer and pointer, thicknesser, moulder, tenoner, rebater, slot and hollow chisel morticer and borer. The two sizes can be obtained with either motor or belt drive. The crosscut and grooving machine and the bandsaw machine, which are also displayed, are motorised. [Stand No. 58.]

Mills Scaffold Co., Ltd., are showing a standard unit of shutter called the "Milform." This is made in a variety of sizes and examples are exhibited showing the simple and strong construction. [Stands Nos. 90 and 91.]

The Mint, Birmingham, Ltd., are demonstrating their copper "MBL" capillary fittings, copper tube for domestic water service, copper cistern balls and copper sheet and strip for roofing. [Stand No. 84.]

The display scheme of the **N.C.B., West Midland Division,** has been split into a number of panels to display sixteen types of bricks other than commons, all closely integrated into a design incorporating an office opening on to a courtyard with boundary walls and gateway, and thence into a garden area with a flat reinforced brick arch in the background, the floor area throughout being paved with bricks laid in varying designs. The types of bricks on show range from commons through a variety of facings to engineering bricks. [Stand No. 51.]

The **Neuchatel Asphalte Co., Ltd.,** are displaying a built-up felt roofing model designed to present the manner of construction of this roof surfacing material. Samples of mastic asphalte are displayed together with photographs and models of the various types of road surface construction. [Stand No. 81.]

Blinds are the chief exhibit of **W. G. Parker and Co., Ltd.,** especially the new light alloy venetian blinds, which can be used in schools, offices, shops, etc., as well as for domestic purposes. They are also showing blinds for light exclusion in X-ray rooms, operating theatres, laboratories, etc.,

and concertina type blinds for coaches and buses, etc. [Stand No. 98.]

Details of constructing fireproof floors are given by **Parkfield Concrete Products Co., Ltd.** The system comprises patented hollow concrete blocks with blind ends, placed in pairs permitting the use of reinforcement in both directions. The floors are suitable for long or short spans, and whilst being in themselves light in weight are capable, it is claimed, of carrying extremely heavy point loads. The precast hollow concrete tiles are made on block making machines manufactured by Messrs. Trianco, Ltd., which provide for a true and continuous soffit giving a good key. Also on view are Trianco patent steel telescopic centres. [Stands Nos. 20, 21 and 22.]

Pestcure, Ltd., show the life history of the dry rot fungus, together with models of the fruiting body, spores, mycelium and water carrying tubes. They also give information on methods of treatment. Included in their display are models of death watch, furniture, lyctus and house longhorn beetles, showing the life history of each species from the eggs to the adult. Specimens of timber showing damage caused by both wood-destroying fungi and wood-boring insects are displayed. [Stand No. 39.]

E. Pollard and Co., Ltd., are showing a selection of joinery and metal work for banks, public buildings, shopfronts, store equipment, lift cars, revolving doors, invisible glass, etc. [Stands Nos. 75 and 76.]

William Randall and Co. (Horsham), Ltd., are specialists in the manufacture of ladders, steps and trestles, and their exhibit will comprise all types of these products. [Stand No. 102.]

Three devices are demonstrated by **Rawlplug Co., Ltd.** These devices are known as Rawlties, Rawloops and Rawlhangers and, it is claimed, enable formwork to be used for successive lifts without struts; the previous bolt holes acting as templates and enabling the concrete formation to be built up to almost any height. Scale models on the stand will demonstrate the application of the devices, which it is claimed, speed up the erection and dismantling of timber or metal shuttering.

Also demonstrated is the Durium Masonry Drill.

The Rawlnut can be used for fixing in hollow plastic panelling, hollow bricks, wallboards and other similar material. [Stand No. 88.]

Woodworms actually boring through the solid timber can be seen through a magnifying viewer on the stand of **Rentokil, Ltd.** "Unit" specimens of all the common woodboring insects and infested timber, together with the various wood-rotting fungi are shown. [Stand No. 31.]

Roller Shutters, Ltd., give a working demonstration of the power-operated steel rolling shutter, with emergency hand-operation, suitable for loading decks, factory entrances, garages, etc. A manually operated shutter in aluminium alloy for installation on serveries, counters, shopfronts, doorways, operating theatres, X-ray and dark rooms, and school laboratories is also on show, together with concertina-type horizontal sliding and folding shutters, and a model of a collapsible gate suitable for theatre and store entrances and machinery protection. There is, in addition, the "Eclair" balanced overhead door which has no springs, floor or ceiling tracks, and is supplied in one span of up to 200 ft. for fire stations, etc. [Stand No. 49.]

The T.D.A. stand. John R. M. Poole, A.R.I.B.A., A.M.T.P.I., architect

Roneo, Ltd., are exhibiting their new electronic stencils, which are prepared direct from photographs, drawings or printed matter without the aid of intermediate photography. No screens or tints are employed and the result is a continuous tone effect which is claimed to give a realistic reproduction of the original. The wide printing Policy duplicator is also shown for the reproduction of estimates, schedules and statistics of all kinds. This machine prints on paper 18 in. by 14 in. and has the advantages of the Roneo "500" automatic inking control. [Stand No. 37.]

Some of the newer building products are the main features of the exhibit of **Rowe Bros. and Co., Ltd.** Their stand is constructed of aluminium scaffolding with "Norstel" fittings and a portion of the stand structure displays the various standard profiles of I.C.I. Perspex sheets for roof light work. A separate section is devoted to a display of Secomastic and provision is made for regular demonstrations of this material. A display of Fibreglass is arranged to give emphasis to the importance of thermal insulation in buildings. Also on show is the Rowe office partitioning and True Flue lintel blocks and patent precast flue construction blocks. [Stand No. 83.]

A selection of standard joinery for housing is exhibited by **Sharp Bros. and Knight, Ltd.** The new "National" window, exhibited for the first time, has been designed to give the maximum strength with the minimum amount of timber. Examples are shown of stormproof windows, bay windows and French frames, also EJMA standard windows together with a display of various types of doors. EJMA standard kitchen units, including a complete sink unit, form part of the exhibit. [Stand No. 68.]

Skarsten scrapers, which are hand tools for removing paint, varnish, enamel, lacquer and glue from wood, metal and glass surfaces and for dressing down wood to a smooth finish are exhibited by **Skarsten Manufacturing Co., Ltd.** They are fitted with sharp, renewable hook-shaped blades, which can be resharpened with a fine file. There are nine models on show, including a new dual scraper with special serrated blade for stripping off old hard coatings and a straight blade for finishing off the surface. A plaster crack scraper for opening out cracks on wall and ceiling before replastering is also on show together with the Awlscrew combined screwdriver and bradawl, a repointing scraper, for breaking up and scraping out old mortar before repointing brick walls and a channelling tool for cutting channels in brick and concrete which can be used for chipping off rust and scale and boring holes. [Stand No. 45.]

The exhibit organised by the **Solid Smokeless Fuels Federation** shows how the requirements for heating services in smokeless zones can be met and demonstrates the outstanding efficiency and economy of the appliances which have been designed for heating, cooking and hot-water supply with solid smokeless fuels. Smokeless fuels are shown in various grades and sizes and, on the stand, are eight different appliances, all in operation, covering the domestic requirements for

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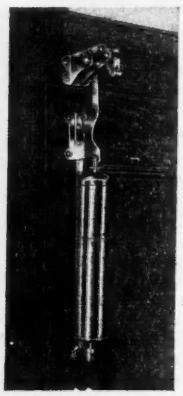
heating, cooking and hot-water supply. [Stands Nos. 65 and 66.]

Stephens & Carter, Ltd., are showing a comprehensive range of ladders, steps, trestles, barrows, steel props, chain tackle, and other non-mechanical builders' plant. Full details and samples of their standard scaffold fittings are also on view, together with a "Benford" concrete mixer. [Stand No. 89.]

Stramit Boards, Ltd., of Uxbridge, are presenting many interesting uses of their building board. This product originated in Sweden, where it has been in constant use since 1936. It is a highly compressed building slab, made from straw and covered with paper liner. The board is 2 in. thick, and stock sizes are 4 ft. wide by 8 ft., 9 ft., and 10 ft. Examples will be shown of Stramit in use as roof decking, partitioning material, and insulating lining to external walls. In addition to actual exhibits, photographs will show several contracts recently carried out. [Stand No. 62.]



"Talfacto" Automatic door sprayer

A new automatic door sprayer, which, when fitted to a door and filled with germicide, will automatically spray into the room each time the door is opened, is the exhibit of **Talfacto, Ltd.** [Stand No. 43.]

The Thwaites Agricultural Engineering Co., Ltd., are only showing the Thwaites builders' hoist, which is a light lifting appliance of the lean-to type, and has been designed to elevate different types of building materials, including bricks, tiles, blocks, lintels, mortar and concrete, etc., to heights ranging from 9 to 30 feet, and is suitable for use in the erection of buildings up to three storeys high. It consists of a small portable windlass powered by a 2/2½ h.p. engine which is hinged to the tubular telescopic members which form the guides for the various cages. Tiles are carried in an enclosed cage and concrete in a special tipping skip. [Stand No. 60.]

The exhibit of the **Timber Development Association, Ltd.,** is of boxed plywood cantilevered arch construction, and features models, plans and photographic panels showing the latest developments in research and design on the economic use of timber, its constantly developing possibilities in combination with synthetic resins in laminated and other forms of construction, and the work and literature in general of the Association. One of the models featured is of a storage building at Shoreham, which is of timber construction. [Stand No. 14.]

The exhibits on the stand of the **West Midland Gas Board** are assembled to show how gas can help the builder and architect. Hot-water systems operated by gas and by solid fuel are shown, suitable for installing in old and new property. Economy flues are illustrated by the Nautilus, Tru-flue, and the recently developed Aerolete one-piece gas-fire flue. There are gas fires, radiators and overhead space heaters for heating, and the Ranalah drying unit for drying clothes in small houses or flats. [Stand Nos. 46 and 47.]

GOVERNMENT BUILDING

Avoiding Dislocation

MR. GORDON FISHER, president of the North-Western Region of the Federation of Master Builders, speaking at the annual general meeting of the Wirral Branch of the Federation, at Wallasey, on February 8, said: "During this year, the Government of the day will find the building industry still possesses that same enthusiastic spirit and elasticity of organisation which was the admiration of all during the long war against Hitler's Germany.

"Already it has been indicated that there will be a curtailment of the civilian building programme. This does not mean that the global volume of building work is likely to decrease, but it does mean that in the months to come firms will have to change over from civilian work to work of a sort necessary for defence. It is to be hoped that this change over will be gradual and that due regard will be paid by the Government departments concerned to the necessity of builders keeping their balanced labour forces together and perfecting their organisations for the new tasks ahead.

"More and more contracts for building work will emanate from Government departments; I hope that the skill and resources of the medium-sized and smaller building firms will not be overlooked and that they will receive their due proportion of the contracts that are to be placed.

"It seems certain that no section of the community will cavil at making the sacrifices the Prime Minister has called for. Sacrifices now of some degree of material comfort are better than a state of unpreparedness to an aggressor. I sincerely hope, however, that the present Government will not use the emergency that has arisen as an excuse for a fresh shoal of red tape and petty and stultifying restrictions."

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HIGHER BUILDING WAGES

N.J.C. Decide on 2½d. an Hour Increase

THE National Joint Council for the Building Industry decided last week to make a general increase in wages of 2½d. per hour, to take effect on March 5 next. This wage increase will apply equally to craftsmen and labourers. The decision has followed a detailed comparison of weekly earnings of industrial workers generally. That comparison has established that the present weekly earnings of building workers now compare less favourably than in former years with those of workers in other major industrial groups, and an adjustment of the present building wage-rates is accordingly necessary to ensure a balanced position.

The decision has not been influenced by, and does not affect, the recent agreed settlement on incentive payments; it is also independent of the ordinary operation of the sliding scale clause.

Both sides have recorded their recognition of the need for seeking and maintaining stability. The annual wages review (under the sliding scale) is intended to, and will, balance normal fluctuations in the cost of living. This in itself helps to ensure a measure of stability. Apart from unforeseen changes in the national economic position, the parties to the agreement do not expect any further basic wage-movements in the industry within a reasonable period.

In regard to the employers' proposal in favour of longer working hours in those districts not already operating 46½ hours per week, no change in the national rule has been agreed upon, but the position in individual districts will be capable of consideration under the constitutional process provided in that rule.

WELFARE ON BUILDING SITES

Suggestions for Meals, Shelter, etc.

AN illustrated booklet on "Welfare Arrangements on Building Sites," issued by the Ministry of Labour and National Service, in consultation with the Ministry of Works, has been published by the Stationery Office, price 9d. net. The booklet deals with arrangements for meals, sanitary conveniences, first-aid and ambulance rooms, accommodation for clothing and shelter, drinking water, special washing facilities, and dust, fume and eye risks. It is prefaced by a foreword summarised below, over the signatures of the Minister of Labour and National Service, and the Minister of Works.

"An important development in the building industries in recent years has been the increasing attention paid to health and welfare facilities for the workers in connection with their places of work. The 'Building (Safety, Health and Welfare) Regulations, 1948, made under the Factories Acts, contain some legal requirements on the subject; but they are necessarily in general terms, because conditions at different sites or buildings, where work is done, vary so widely, and do not, therefore, afford much guidance as to exactly what should be done when it comes to matters of practical detail in the case of any particular site or job.

"A good deal of practical experience has now been accumulated by employers and others as to ways in which the problem should be tackled, and in the light of this the present booklet has been compiled."

INQUIRY BUREAU

Increased Costs of Making-Good Defects

Q.—Clause 12 of the R.I.B.A. Form of Contract states that defects which appear within the Defects Liability Period shall be made good by the contractor at his own cost. Can a contractor claim for increased costs of labour and materials under Clause 25.A. with regard to work carried out under Clause 12? —MUNICIPAL.

A.—A legal correspondent writes:—Clause 1 of the contract, in this connection, must be read with Clause 12, and the former clause lays it down that architects' instructions are to be issued in regard to the amending and making good of any defects under Clause 12. Briefly, the contractor must forthwith comply with such instructions and, if compliance with them involves any *variation*, it is to be dealt with under Clause 9 (i.e., the value of such variation, if any, is to be added to or deducted from the contract sum).

The following paragraph states that, on the other hand, if compliance with architects' instructions involves the contractor in loss or expense beyond that provided for in, or reasonably contemplated by, the contract, then, *unless such instructions were issued by reason of some breach of the contract* (and, as a general rule, the appearance of defects, shrinkage, etc., in the contract works due to materials or workmanship, or both, not in accordance with the contract would come under that head), the amount of any loss or expense is to be ascertained by the architect, and will affect the contract sum. Furthermore, non-compliance with architects' instructions after seven days' written notice from the architect may result in the employer engaging other contractors to execute the work involved in the instructions and recovering the amount as a debt from the contractor.

It is clear that, under this formal contract, in regard to any of the reasons for which the contractor can claim additions to the contract sum (e.g., Clauses 1, 3 (*re* local or other authorities' notices and fees), 5 (tests of materials), 9 and 25 (fluctuations), the underlying principle is that the contractor is allowed to claim cost of additional expense for matters *either beyond his control or which are definitely allowable under the contract, to cover sums paid out by him.*

Applying this principle to our correspondent's inquiry as to whether the contractor can claim under the fluctuations clause (25) for increased cost of labour and materials for work under Clause 12, I am of opinion that he cannot successfully do so, and for these reasons: though it be true that, under Clause 25, if *during the progress of the works*, the market price of materials or goods in the list attached to the bills of quantities (assuming the form where quantities are made part of the contract) varies from the basic prices, the contractor can, broadly speaking, recover the difference, I do not regard *remedying of defects* as work included in the "progress of the works," i.e., the contract works in accordance with the contract. "Progress of the works" is intended to cover, I think, the latter and, following on my observations in the previous paragraph and seeing that the work of remedying defects is something that has arisen from the contractor's default there, it would be clearly inequitable and contrary to the spirit of the contract to mulct the employer in some extra cost because of the contractor's breach of the terms of the contract. The cost of remedying the defects means, in my opinion, cost of prices ruling at the time the work is done. N. P. G.

DEMANDS OF REARMAMENT

Government Guidance Needed on Supply Problems

SPEAKING on the demands likely to be made upon industry as a result of the rearmament programme, Mr. H. A. Hawkes, Chairman and Managing Director of A. Hawkes and Co., Ltd., said that it must be appreciated that the Government was swamped with offers from private firms. This was not a total war effort in which the whole national resources were going to be employed. It was equally important to keep our peace-time economy running. Some industries would be needed almost completely; others would not be needed at all. Many would come in indirectly on sub-contracts for components.

"To what extent will our industry be needed?" asked Mr. Hawkes. "In the war, something like 90 per cent. of our work was direct war effort. But that was in a time when I believe we were using up to two-thirds of our national product to fight the war, and running our home economy on the remaining third. Rearmament will not take anything like the same proportion, because we are only preparing to hold aggression—not to make a war."

As business men they wanted to be able to plan ahead. They had a right to say to the Government: "Tell us as soon as you can what raw materials we shall or shall not be able to use. Whether we have to make new plans about our manpower, whether you will let us have sensible and appropriate capital investment to adjust our production to the new conditions. In other words, help us to keep going so that if and when a further call comes, we shall still be in existence."

TECHNICAL BOOKS

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BRITISH STANDARDS INSTITUTION

Expansion Regarded as "Urgently Necessary"

FIFTY years ago the Institution of Civil Engineers appointed a committee of six members for the standardisation of steel sections such as girders. It was estimated that their success in this reduced costs by 5s. a ton, and saved industry £1,000,000 a year. From this has developed the British Standards Institution of today, working through some 2,000 different technical committees, and responsible for about 1,500 general standards, over 200 special standards, and some 30 codes of building practice. Even since 1939 the number of general standards has almost doubled.

Current annual expenditure is roughly £220,000—less than one quarter of the estimated saving from the work of that first 1901 committee on steel sections.

It is estimated, however, that with further advances in standardisation this expenditure will double over the next few years: and it was in view of this that, in June, 1949, the President of the Board of Trade appointed a committee under the chairmanship of the Hon. Geoffrey Cunliffe to consider the Institution's organisation and constitution.

Economic Importance

The Committee's report*, now issued, states that there is no doubt that industry increasingly recognises the economic importance of standardisation, that it will proceed by consent, and that B.S.I. will need to be expanded to meet the increase in the volume of work which this growing interest will entail.

The Institution has received a contribution from the Government every year (except 1909) since 1904. The contribution at present stands at £90,000. For the year 1951/2 they recommend a minimum Government contribution of £90,000, and thereafter a contribution equal to the income from industrial subscriptions, subject to a maximum of £150,000. Such a contribution, they say, is justified on the grounds that the Government is a large purchaser of goods of all kinds, and it represents the public as consumers of goods which, in the absence of standards, might be dearer or less serviceable. At the same time, too large a subscription would prejudice the Institution's autonomy, and the Committee thought it unwise to suggest a Government contribution in excess of that subscribed by industry. Only some 3,000-4,000 manufacturing firms at present subscribed, and of those that do many should, in the Committee's opinion, increase their subscriptions.

The Committee finds that the constitution and organisation of B.S.I. is well adapted for carrying out its present work and the increased work which may be expected to fall upon it. B.S.I. should remain under the control of its own General Council and retain its present status as a body incorporated by Royal Charter. The British Standards Institution has expressed general acceptance of the recommendations of the Committee, and the Government is now considering action on recommendations which raise Government issues.

* Report of the Committee on the Organisation and Constitution of the British Standards Institution: Stationery Office, 1s. net.

EXTRA 2d. FOR FESTIVAL ELECTRICIANS

Committee's Findings

THE committee set up by the Ministry of Labour to investigate the unofficial strikes on the Festival of Britain sites has recommended that the 400 electricians involved be paid the extra 2d. an hour they had demanded. For most of the men this will mean 8s. a week extra. The committee suggested that the extra payments should date from January 26, the first day of the strike. It also recommended that the 99 electricians employed on the L.C.C. concert hall, who had not demanded the increase, be paid 2d. an hour extra.

In the committee's opinion the time factor in work on Festival sites was so important as to give to the work an "exceptional quality." It was reasonable to describe the work as analogous to that at Earl's Court, Olympia and White City, where the higher rate is paid.

The committee, under Lord Terrington, chairman of the National Arbitration Tribunal, began gathering evidence on February 10, and the findings were announced at a mass meeting of the men, who decided to resume work on Wednesday, February 14.

CLERKS OF WORKS DINNER

London Group

SPEAKING at the annual dinner and dance of the Association of Clerks of Works (M.O.W.), London Group, held at the Paviour's Arms, Westminster, on February 10, SIR CHARLES MOLE, M.V.O., F.R.I.B.A., Director-General of Works, emphasised the importance of all members keeping abreast of building costs, bonusing of tasks and progress charts.

The president, MR. J. R. WORSFOLD, said that continual efforts were being made for the establishment of a Royal Charter. It was his opinion that some national standard should be set for all clerks of works. In proposing the toast of "The President," MR. E. E. H. BATE, M.C., M.B.E., said that Mr. Worsfold had been associated with him for some time, and they had formed a happy and fruitful understanding. As president he had taken a real interest in the London Group, especially in the welfare and the upholding of the status of all clerks of works.

OFFICIAL NOTIFICATION

Iron and Steel Scrap

An Order increasing the scrap iron and steel merchants' trade allowance for maximum prices for scrap iron and steel from 3¾ per cent. to 5 per cent. has been made by the Minister of Supply. The Order—the Iron and Steel Scrap Order, 1951, S.I. 1951, No. 208—came into force on February 12.

Hire of Contractors' Plant

The M.o.W. Plant Hire Rates Committee have issued a third edition of the schedule of rates for net cost and similar items in connection with the hire of contractors' plant. The rates, which become effective as from February 5, have no statutory authority, and their use is a matter of arrangement between the parties concerned.

NEWS IN BRIEF

N.F.B.T.E. Vice-Presidents

Mr. G. W. Grosvenor, a director of Messrs. J. Long and Sons (Bath), Ltd., was among the elected junior vice-presidents of the National Federation of Building Trades Employers at the Federation's recent annual general meeting.

Carlisle Building Exhibition

The Ministry of Works is to hold an exhibition of Modern Building at the Market Hall, Carlisle, from February 22-28. The exhibition includes modern site organisation, domestic plumbing, codes of practice, and thermal insulation sections. Architectural and industrial associations, and representatives of building trade employers and operatives are co-operating, and there will be examples of work by students of technical colleges in the region. Admission is free.

Demolition Industry Wages

Following the alterations in the labourers' rates in the building industry, it has been agreed (in accordance with the Working Rule Agreement) that basic rates per hour for all operatives (other than building craftsmen) in the demolition industry in England and Wales, shall, as from February 5, be as follows: Grade A, 2/5½; Grade A1, 2/5; Grade A2, 2/4½; Grade A3, 2/4; London District: within 12 miles' radius 2/7, from 12-15 miles' radius 2/6½; Liverpool (Mersey and district) 2/7.

British Industries Fair, 1951

Speaking at the opening of the new B.I.F. Press Office at Lacon House, Theobald's-road, W.C.1, on February 7, Mr. R. E. J. Moore, C.B.E., director of the B.I.F., said that they were not expecting the rearmament programme to have any great effect upon the range of this year's British Industries Fair. In the London section only about one per cent. of the exhibitors have withdrawn while the section at Birmingham has so far not been affected at all. The Fair, this year, is to take place in London and Birmingham between April 30 and May 11.

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HIGHER BUILDING WAGES

N.F.B.T.E. President on Effects on Costs

SPEAKING at the annual dinner of the North-Western Federation of Building Trades Employers, at Llandudno, yesterday, Mr. Stephen Hudson, President of the National Federation of Building Trades Employers, said the three main questions arising from last week's agreement to increase building wages by 2½d. an hour were: Why was the increase agreed? Would it remove dissatisfaction among operatives? How would it affect building costs?

"Building is a craft industry and in the course of their negotiations the leaders on both sides were unanimous in their opinion that it was impossible to justify a position under which the gap continued to widen between the weekly earnings of building operatives and of those employed in other major industries—often on work of a repetitive nature," said Mr. Hudson. "A noisy but irresponsible minority of Oliver Twists, prompted, perhaps, by guidance from behind the Iron Curtain, will no doubt go on asking for more, but I feel that the majority of the operatives, and public opinion generally will realise that in these difficult days the negotiators have acted in a fair and statesmanlike manner whilst acknowledging the importance of maintaining stability for a reasonable period ahead.

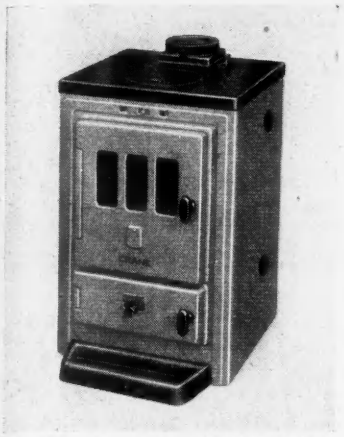
The Wrong Approach

"There are two ways of considering the effect of increased wages on the cost of building. The first is purely arithmetical. It is easy to multiply the number of hours worked by the million or more men employed on building operations by 2½d. and to say that that would be the extra cost. That, I maintain, is an entirely wrong approach. By and large, the industry is composed of patriotic citizens who, like their leaders, realise that it is the customer who foots the bill of any wages increase—in so far as the increase is not off-set by increased output—and that although building costs have not risen more than those in other industries, they are high and must be reduced as soon as possible."

He was confident that the increase in wages would strengthen the already good relations which existed between building employers and operatives and that this, in itself, would lead to increased production. "I am also confident," Mr. Hudson continued, "that a further increase, and one which will add to the weight of the weekly pay packets, will be obtained from the adoption of more bonusing schemes as a result of the settlement on incentives reached a few months ago. Much will depend on the availability and the cost of materials, but I am sure that the necessary efforts will be made. It is the duty of all employed in the industry—employers, management and operatives—to increase output so that little or none of the recent wages increase will be reflected in costs."

Iron and Steel Corporation

The Iron and Steel Corporation of Great Britain took over their new offices at 1, Chester-street, London, S.W.1, on February 12. (Tel.: Sloane 0818.) Mr. Ralph Cox, Assistant Secretary to the Corporation, will be in charge of the Information Division of the Corporation.



The No. 25 Crane domestic boiler for hot water supply. This boiler, which has an enamelled finish and is rated at 25,000 B.T.U.s per hour, is one of the wide range of boilers and radiators on display in the recently reopened showrooms of Crane, Ltd., at 118, Wigmore-street, W.1

TRADE NEWS

Mechanical Shovel

Chaseside Engineering Co., Ltd., have produced a booklet entitled "Does the Chaseside Shovel Really Pay for Itself?" which aims at proving that the shovel is inexpensive to run and points out its capabilities.

Low Level Cisterns

Fordham Pressings, Ltd., Melbourne Works, Dudley-road, Wolverhampton, have produced a leaflet showing their latest developments in providing alternative means of operating the Fordham low level syphonic cistern, i.e., by the front or side lever or push-button.

Boots' Printing Works

We are asked by Jenson and Nicholson, Ltd., to point out that their advertisement for Robbialac paints in our issue of January 12, 1951, which showed a view of Boots' printing factory at Nottingham, inadvertently omitted the following acknowledgment: Architect, P. J. Bartlett, F.R.I.B.A. (formerly Architect, Boots Pure Drug Co., Ltd.); chief assistant in charge of works, A. J. R. Marshall, A.R.I.B.A.

Two New Water or Steam Radiators

Ideal Boilers and Radiators, Ltd., Ideal House, Great Marlborough-street, London, W.1, have recently introduced the Nos. 44 and 45 Ideal Rayrad. No. 44 is primarily intended for fixing in window recesses, whereas No. 45, which is in the form of an enclosure, enables it to be used against any flat wall surface. They are claimed to be suitable for schools, hospitals, offices and other buildings, as well as for private residences.

Aluminium Structures

The advantages of aluminium as a structural material are described in a new brochure, "The Use of Aluminium Alloys in Structural Engineering," issued by the Aluminium Development Association. A number of structures erected in aluminium are shown, including the Dome of Discovery on the South Bank Festival of Britain site. Aluminium-base materials are also classified and their properties described. Mechanical properties are further tabulated under the various forms in which aluminium is supplied, such as extruded sections, sheet, strip and plate, tubes and rivets.

"THE BUILDER" PRICES

INCREASE IN MAXIMUM SELLING PRICES OF CERTAIN ROOFING FELTS AND DAMP-COURSES

Following upon increases in production costs, mainly raw materials, the Minister of Works has authorised an increase of 12½ per cent. in the maximum selling prices of roofing felts and dampcourse made to British Standard Specification by the members of the Association of British Roofing Felt Manufacturers.

The revised maximum prices operate as regards all deliveries made on and after January 31, 1951.

THE SCOTTISH BUILDER

NEW BUILDINGS

Bellshill.—Plans to be prepared for new milk buildings, new dairy byre, new scullery buildings and other additions for the Douglas Support Estates, Ltd., for which their own staff at 150, West Regent-st., Glasgow, W.C.2, are the architects.

Blantyre.—Plans to be prepared by the staff of the Blantyre Engineering Co., Ltd., for new extensions and additions to their offices, the boiler house and the administrative buildings at their Forrest-st., buildings.

East Kilbride.—Lanarkshire C.C. to erect a public school at the Kirktonholm area, for which the architect is Mr. William Watt, F.R.I.B.A., Albert-st., Motherwell-Wishaw.

Glasgow.—Rebuilding and additions to the Scottish Episcopal Church and St. Margarets and St. Mimgos at Rutherglen-rd., Oatlands, for which the architects are Weddell and Thomson, F. & A.R.I.B.A., 216, Bath-st., Glasgow, W.C.2.

Glasgow.—Alterations and additions to "The Sunday Post" buildings, Port Dundas-rd., Port Dundas, for which the architect is T. Lindsay Gray, F.R.I.B.A., 7, Ward-rd., Dundee.

Glasgow.—Plans to be prepared for new garage buildings, which are to be erected for MacCallum & Munro, Ltd., Archadia-st., at Craigenstock-st., for which the architects are Charles J. MacNair, Elder and Ridley, F. & A.R.I.B.A., 529, Sauchiehall-st., Charing Cross, Glasgow, W.C.2.

Glasgow.—Alterations and additions at 42 to 66, New City-rd., Concaddens. The architects are The Scottish Motor Traction Sales and Service, Ltd., staff, 39, Fountainbridge, Edinburgh.

Glasgow.—Plans to be prepared for new secondary school in Scotstoun-rd., Whiteinch, for which the architect is John MacNab, 129, Bath-st., Glasgow, W.C.2.

Greenock.—Plans to be prepared for new public school at the South-West area. Architects are Will J. P. Wright and Kirkwood, F. & A.R.I.B.A., Carlton House, Blythswood-sq., Glasgow, W.C.2.

Lanarkshire.—Plans are in the hands of the Western Regional Hospital Board staff and architects, 64, West Regent-st., Glasgow, W.C.2, for new houses which the board are to build at Chryston Mental Hospital.

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FUTURE CONSTRUCTION

PUBLIC APPOINTMENTS

Full details of Public Appointments open will be found in the Advertisement pages of this and previous issues.

CONTRACTS OPEN

For some contracts still open but not included in this list see previous issues. Those with an asterisk are advertised in this number. The dates at the heads of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications: the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING

FEBRUARY 21.

†**Leeds Regional Hospital Board.**—Erection of two single-storey ward blocks at Westwood Hospital, Cooper-la., Bradford. Architect to the Board, 29/31, Eastgate, Leeds, 2. Dep. £2 2s. Tenders by March 14.

FEBRUARY 22.

*†**Coventry City.**—Sectional timber hutted classrooms at various schools. D. E. E. Gibson, City Architect and Planning Officer, 1a, Warwick-row. Dep. £2 2s. each.

*†**Surrey C.C.**—Secondary school at Merstham. County A.

*†**Surrey C.C.**—Primary school at Merstham. County A.

FEBRUARY 23.

*†**Bristol City.**—Infants' primary school, Hallen-dr., Sea Mills. J. Nelson Meredith (F.), City Architect, Eagle House. Dep. £2 2s.

*†**Bristol City.**—2 temporary shops, Old Market-st. Oaten & Bunce (AA.), 22, Clare-st. Dep. £2 2s.

*†**Hampshire C.C.**—Third instalment of Aldershot Manor Park Sec. Sch. County A., The Castle, Winchester. Dep. £3 3s.

FEBRUARY 24.

*†**Eton U.D.C.**—34 dwellings. E. & S., Council Offices, High-st. Dep. £2 2s.

*†**Staffs C.C.**—College of Further Education, Tamworth. A. C. H. Stillman, architect, Green Hall, Lichfield-rd., Stafford. Dep. £4 4s.

*†**Staffs C.C.**—School, Bradwell, Newcastle-under-Lyme. A. C. H. Stillman, architect, Green Hall, Lichfield-rd., Stafford. Dep. £4 4s.

FEBRUARY 26.

*†**East Sussex C.C.**—Extensive alterations at Middleton Manor, Plumpton. County A., County Hall, Lewes. Tenders by March 28.

*†**Lincoln (Parts of Kesteven) C.C.**—Adaptations and additions at Bourne House Hostel. County A., County Offices, Sleaford.

*†**Northampton C.B.**—19 old persons' bungalows at "Sunnyside," Harborough-rd. Boro.' A., Guildhall. Tenders by March 19.

FEBRUARY 27.

*†**Redcar Boro.'**—4 shops and maisonettes, Dale estate. B.E. Dep. £5 5s.

*†**Walthamstow Boro.'**—Convenience, Oak Hill. Boro.' Architect. Dep. £2 2s.

*†**West Mersea U.D.C.**—6 pairs of houses and 1 block of 4 dwellings for old people at Coastguard-gdns., Churchfields. R. J. Sparrow & Partner, architects, 7, North-hill, Colchester. Tenders by March 12.

FEBRUARY 28.

Billingham U.D.C.—Erection of 80 houses on the Roseberry-rd. housing site No. 3. Kitching & Co., 21, Albert-rd., Middlesbrough. Dep. £2 2s.

*†**Birmingham T.C.**—18 houses at Longbridge-la., Hawkesley Farm estate, contract 148. City E. & S., Civic Centre. Dep. £2 2s.

*†**Hampshire Police Authority.**—Police houses at various sites. County A., The Castle, Winchester. Dep. £1 1s.

*†**Thurrock U.D.C.**—134 houses and 5 shops with maisonettes at Corringham. E. & S., Council Offices, Palmers-ave., Grays. Dep. £3 3s.

MARCH 1.

*†**Huntingdonshire C.C.**—Conversion to form health clinic and 2 flats of Railway Hotel, St. Ives. S. J. Hands (A.), County Architect, County-bldgs., Huntingdon.

MARCH 2.

Brierley Hill U.D.C.—Erection of three public conveniences. E. & S., Hawbush House, Brierley Hill. Dep. £2 2s.

*†**Greenwich Boro.'**—48 flats, Cherry Orchard housing site, Charlton. B.E. & S.

*†**Southend-on-Sea C.B.**—Primary school at Blenheim Chase. Architect to the E.C. Dep. £2 2s.

MARCH 3.

Thirsk (Yorks) R.D.C.—21 houses and four old people's bungalows in pairs and blocks at Sutton-rd. Needham, Thorp and White, architects, 6, High Petergate, York. Dep. £2 2s.

MARCH 5.

*†**Chigwell U.D.C.**—Public convenience at Queen's-rd. E. & S. Dep. £3 3s.

*†**Durham County Police Authority.**—1 pair of police houses at Silvertop-gdns., Greenside. County A., Court-la.

*†**East Riding C.C.**—Extensions at Hessle County Sec. Sch. County A., County Hall, Beverley. Dep. £3 3s.

*†**Glamorganshire C.C.**—Conversion into hotel for aged, "Craig-y-Parcau," Bridgend. L. R. Gower (F.), County Architect, Cardiff. Dep. £2 2s.

***Middleton Boro.'**—90 houses, Acresfield-rd. site. J. Pollard (L.), Boro.' Architect. Dep. £2 2s.

MARCH 6.

Stalybridge B.C.—40 houses on Ruckton Vale site. Howard and Benson, architects, 88, Mosley-st., Manchester. Dep. £2 2s.

Warsop U.D.C.—(a) 70 dwellings, and (b) road-works and sewers in Market Warsop. Vallance and Westwick, architects, White Hart-chbrs., Mansfield. Dep. £2 2s.

MARCH 9.

***Maidenhead T.C.**—28 dwellings at Larchfield estate, contract 5A. B.E. & S., 13, Cranford-rise. Dep. £2 2s.

MARCH 10.

***Bournemouth C.B.**—Erection of West Beach Café. Boro.' A. (Room 98). Dep. £2 2s.

***Deal T.C.**—44 houses and 16 flats at Orchard-ave. estate. B.E., Municipal Offices. Dep. £2 2s.

MARCH 12.

***Aycliffe Development Corp.**—Shops, flats, etc., in Ward "A" Centre. A. W. Thomas, general manager, Newton Aycliffe. Dep. £2 2s.

MARCH 13.

***Northfleet U.D.C.**—20 houses, Coldharbour-rd. estate. E. & S. Dep. £2 2s.

MARCH 14.

***Hastings C.B.**—(1) 4 blocks of flats and 8 pairs of houses at Rectory site, Hollington; (2) 2 blocks of 3 houses and 2 pairs of houses at Rock-la., Ore. B.E., 37, Wellington-sq. Dep. £2 2s.

MARCH 15.

***Camberwell Boro'.**—60 flats, Cleve Hall housing estate. S. J. Harvey, Acting Town Clerk. Dep. £2 2s.

***Camberwell T.C.**—40 dwellings, Herne Hill housing site. S. J. Harvey, Acting Town Clerk. Dep. £2 2s.

MARCH 16.

***Lincoln (Parts of Kesteven) C.C.**—Erection of Sec. School, North Hykeham. Watkins, Coombes & Partners, Heslam-chbrs., 191, High-st., Lincoln.

MARCH 28.

Bridlington Boro'.—15 houses, West Hill estate. B.E. Dep. £5 5s.

NO DATE.

***Midhurst R.D.C.**—Nine houses and two flats, Cocking site, and roads and site works, South Harting site. T. Greenfield (F.), architect, "Newstead," Midhurst. Dep. £1 1s.

***Smethwick E.C.**—Junior school, Halfords-la. Chief Education Officer, 215, High-st. Dep. £2 2s.

PAINTING, ELECTRIC LIGHTING, MATERIALS, ETC.

FEBRUARY 19.

***†Manchester E.C.**—Mechanical engineering works at Municipal College of Technology extension. Bradshaw, Gass & Hope, 19, Silverwell-st., Bolton. Dep. £2 2s.

FEBRUARY 21.

***†Isle of Ely C.C.**—Heating and hot water supply at infants' sch., Downham-rd., Ely. County A. Dep. £2 2s.

***†Lincoln (Parts of Kesteven) C.C.**—Electrical works and engineering services at Sec. Sch., North Hykeham. Watkins, Coombes & Partners, Heslam-chbrs., 191, High-st., Lincoln.

***Wandsworth Boro.'**—Chain-link fencing to various war damaged sites. Acting B.E. & S.

FEBRUARY 24.

Droitwich B.C.—B.E. & S. (Materials).

FEBRUARY 26.

***Salford T.C.**—Heating and hot water installation, etc., at Primary Sch., Summerville-rd. J. Roger Preston & Partners, Dilke House, Malet-st., London, W.C.1. Dep. £3 3s.

FEBRUARY 28.

Chadderton U.D.C.—E. & S. (Materials).
Colne Valley U.D.C.—S. (Materials).
***Wembley Boro.'**—Maintenance of Council properties for one year. B.E. & S.

MARCH 3.

Bury C.B.—E. & S. (Materials).
Cowes U.D.C.—C. (Materials).

MARCH 5.

Morley B.C.—E. (Materials).

MARCH 7.

Gloucester T.C.—E. & S. (Materials).

MARCH 8.

Worthing B.C.—E. & S. (Materials).

MARCH 9.

***Sheffield City.**—Heating and hot water installation, also ventilation, of assembly hall, Jordanthorpe secondary technical school. W. Geo. Davies (F.), City Architect. Dep. £1.

MARCH 14.

Crompton U.D.C.—E. & S., Town Hall, Shaw (Materials).

ROADS, SEWERAGE AND WATER WORKS

FEBRUARY 23.

***†St. Helens.**—Making-up of Mitchell-rd. and Oliver-rd. for Trustees of Oliver Lyme Charity. Gornall, Kelly & Shelton, architects, 8, Hardshaw-st. Dep. £2 2s. Tenders by March 15.

MARCH 1.

***†Chesham U.D.C.**—Roads and sewers, Fuller Hill. Powell, North & Partners, Norfolk House, Station-rd. Dep. £2 2s.

MARCH 3.

Weston-super-Mare B.C.—Site works on the Bournville estate (site 10), contract No. 1. B.E. & S. Dep. £2 2s.

MARCH 6.

Bromley B.C.—15,000 yds. of carriageway at Hayesplace site. Boro' E., Municipal Offices, Bromley. Dep. £2 2s.

MARCH 13.

Braintree R.D.C.—Roads and sewers on housing site off Tilkey-rd., Coggeshall. E. & S., St. Peter's-close, Bocking, Braintree, Essex. Dep. £3 3s.

GENERAL BUILDING WORK

(LONDON)

Caterham.—DWELLINGS.—U.D.C. to erect 26 dwellings at Crewes-av. Plans by L. V. Gordon, Boro' E. & S.

Dagenham.—FLATS.—B.C. propose erection of 8 flats at Foxlands estate, which may be erected by Edward Glenny & Son, Ltd., 28, Ripple-rd., Barking, who are contractors for other housing work on the estate.

Dagenham.—HALL.—B.C. propose to erect new assembly hall at Dagenham at £49,000. Plans are being prepared by E. Berry Webber, A.R.I.B.A., 39, Gordon-sq., W.C.1.

Dagenham.—OFFICES AND STORES.—Stock Page and Stock, FF.R.I.B.A., 96, Pitfield-st., N.1, are architects appointed by F. R. Hipperson & Son, Ltd., for administration office and stores at Wantz-rd.

Dagenham.—FACTORY.—J. K. Greed, A.R.I.B.A., 14, Hill-st., Richmond, Surrey, is architect to Tuck & Co., for factory at Hainault industrial estate.

Finsbury.—VICARAGE.—Gordon Jackson, F.R.I.B.A., Hinton-bldgs., Hinton-rd., Bournemouth, has prepared plans for a new vicarage to be erected at Goswell-rd. at £10,000.

Hendon.—DWELLINGS.—B.C. proposes 20 flats and 12 maisonettes at Cricklewood-la., for which Boro' E. has prepared plans.

Hendon.—OLD PEOPLE'S HOME.—Riley and Glanfield, F/A.R.I.B.A., 6, Raymond-bldgs., Grays Inn, W.C.1, are architects for an old people's home at West Heath-gdns. for Hendon Old People's Housing Society.

Hendon.—OFFICES.—Witton James, Ltd., Edgware-rd., N.W.9 propose additions to their offices at the Hyde, N.W.9.

Muswell Hill.—SCHOOL.—M.C.C. to erect Tollington secondary modern school at Creighton-av. Plans by Richard Sheppard, F.R.I.B.A., and Partners, 15-16, Bedford-pl., W.C.1.

Wandsworth.—FLATS.—C. Lovett Gill, F.R.I.B.A., 41, Russell-sq., W.C.1, is architect for 116 flats at Wendelworth estate.

(PROVINCIAL)

Ashton.—Hyde & Glossop Hospital Management Com. propose new out-patient dept. at Lake Hospital, at £12,000.

Barnard Castle.—North-Eastern Housing Association, Metrovick House, Northumberland-rd., Newcastle-on-Tyne, are to erect 39 houses on Zetland-rd. extension.

Beccles.—B.C.'s plans for 16 bungalows at Rigbourne Hill estate have been approved by County Planning Com.

Belper.—R.D.C. approved layout for 70 houses at South Wingfield.

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Blaenau Ffestiniog.—T.C. to erect factory, to cost £50,000, at football ground.

Brandon.—M.H. has approved erection of 48 houses, at £48,569. Council's architect, F. Hedley.

Brixworth.—R.D.C. propose eight houses at Arthingworth, 16 at Spratton and 10 at Walgrave.

Corby.—U.D.C. propose central council depot at Cottingham.

Derbyshire.—C.C. approved expenditure at £110,000 for stage 1 of College of Further Education at Ilkeston.

Durham.—R.D.C. has been asked to build about 200 houses for miners at Bowburn, in addition to its normal building programme. R.D.C. Surveyor, K. G. Millar, Byland Lodge, Durham.

Durham.—Durham Industries, Ltd., Dragon Hill, near Durham, are to extend their factory. Architect, G. Gray, Camden-st., North Shields. The steelwork will be supplied by Palmers, Hebburn, Co., Ltd., Hebburn-on-Tyne.

Gateshead.—Extensions are to be made to factory of Adoras Carpets, Ltd., Team Valley trading estate, Gateshead Architects, Arthur and Kirkup, Swinburne-st., Gateshead.—Redheugh Iron and Steel Co. are to extend their fabricating shop. Plans by their own staff have been approved.

Inverness.—Garage and other extensions, estimated to cost £20,000, to be erected by Burnette (Inverness), Ltd., Academy-st.

Kirkby-in-Ashfield.—U.D.C. approved scheme for 20 houses at Southwell-la., at £26,440.

Lancashire.—County Children's Com. plan to erect homes for 25 children at Morecambe, Heysham and Prescot; residential nursery at Swinton and a hostel at Chadderton or Manchester.

Liverpool.—C.C. to reconstruct ballroom at Town Hall, at £20,000.

Loughborough.—T.C. to prepare plans for erection of abattoir.

Macclesfield.—Boro' A., E. A. Heppenstall, to prepare plans for adaptation of the old butter market, as a public hall.

Macclesfield.—Festival project of T.C. is erection of assembly hall for the aged, at Weston.

Manchester.—Jacksons, Tailors, Newcastle-upon-Tyne, propose to extend and alter their premises and have taken over the Rainbow Hotel. Architects, Stephenson and Gillis, Saville-chbrs., North-st., Newcastle-upon-Tyne.

Manchester.—T.C. approved:—Scullery and classroom extensions at Oswald-rd. Cty. Prim. Sch., Chorlton.—Canteen at Johnston-st. Girls' Sch., Bradford.—22 "No Fines" houses (scheme 121), at Northern Moor Neighbourhood Unit.—Site at junction of Corporation-st. and Cannon-st., for a 250-bedroomed hotel (£250,000).—T.C. propose adaptation of Great Moreton Hall, near Congleton, as a residential sch.

Matlock.—U.D.C. approved plans for alterations at Tor Hosiery Mills, for Tor Hosiery Mills, Ltd.; office extensions, ambulance room and tyre depot at Cawdow Quarry, for Constables (Matlock Quarries), Ltd.

Newcastle-on-Tyne.—A pathological institute is to be built at the General Hospital, Newcastle-upon-Tyne. Architects, Sherrer and Hicks, 18, Harcourt House, 10, Cavendish-sq., London, W.1.

Newcastle-on-Tyne.—Ward extensions are to be made at the General Hospital, Newcastle-upon-Tyne, for Newcastle Reg. Brd. Architects, L. J. Couves & Partners, Carliol House, Newcastle.—Associated Lead Manufacturing Co., Crescent House, Newcastle-upon-Tyne, are to extend their printing dept. in Skinnerburn-rd. Plans by their staff have been approved.

Newcastle-on-Tyne.—A warehouse is to be built at Blagden-st. for C. Wilkins. Architect, S. N. Slipper, 38, Cotswold-gdns., Newcastle.—E. D. Coltman is to build a shop, dairy and two flats at Silver Sonnen. Plans by Dryden and Shaw, Market-st., Newcastle.

Newcastle-on-Tyne.—Shop alterations are to be carried out at Allendale-rd., for Newcastle Co-op. Society to plans by Society's Works Dept., 117, Newgate-st., Newcastle.—United Newcastle Hospitals are to convert No. 11, Osborne-ter., into a nurses' home to plans by the Clerk of Works, Royal Victoria Infirmary, Newcastle.

Northumberland.—C.C.'s plans for a new child welfare centre at Morpeth, to cost £12,000, have been approved in principle by M.H. Cty. A., W. W. Tasker, Cty. Hall, Newcastle-on-Tyne.

Nuneaton.—T.C. approved plans for factory at corner of Attleborough and Seymour-rds., for Atlas Hosiery Co. (Nuneaton), Ltd.; clothing factory at Central-av., for Hart & Levy, Ltd.—T.C. recommended to approve plans for 20 houses at Cleveley-dr.

Oldham.—T.C. propose erection of public health office building at West-st., to cost £112,000.

Oswaldtwistle.—U.D.C. propose 40 "Gregory" type flats, at £40,705.

Otley.—Messrs. Dodgshon propose provender mill at Courthouse-st.—Extensions at Victoria Works, for Wm. Walker are proposed.

St. Andrews.—University to erect new Physics Institute at Union-st.; extend Mackintosh Hall; reconstruct Dean's Court.

Salford.—C.C. to seek loan of £20,764 for erection of six police houses at Eccles Old-rd., and six at site in Doveleys-rd. and Caldy-rd.

Shipley.—U.D.C. propose public wash-house at Saltaire-rd.

Smethwick.—B.C. approved plans for extensions at Oldbury-rd., for Alberta Manufacturing Co., Ltd.

South Shields.—Ind Coope & Allsopp, Ltd., propose reconstructing war-damaged warehouse at East-st. —Waterhouse & Rounthwaite, 165, Westmorland-

rd., Newcastle-on-Tyne, are engineers for proposed dry dock extensions for the Middle Docks & Engineering Co., Ltd.—T.C. has informed Min. T.C.P. that it was intended to proceed with construction of new factory premises in Waterloo Vale area. These would include factories of 5,000, 10,000, and 20,000 sq. ft., costing altogether £70,000.

Staffs.—E.C. received approval to include following schools in 1951-2 programme:—Newcastle Bradwell Sec. (£44,880); Stafford Eastlands Jnr. (£49,280); adaptations to Kibblestone Hall, for special school (£9,200). Cty. A., E. M. Coombs.

Stanley (Co. Durham).—U.D.C. has approved plans for a ball-bearing factory on Greencroft Estate, Annfield Plain, for North-Eastern Trading Estates, Ltd., Gateshead, on behalf of Ransome & Marles, Ltd., Newark. Architects, Napper & Taylor, 56, Eldon-pl., Newcastle-on-Tyne. Engineer for the site work is E. G. Lediard, 4, Eldon-sq., Newcastle-on-Tyne.

Startforth (Yorks).—R.D.C. to borrow £20,119 for 10 houses at Romaldkirk and four at Ovington.

Sunderland.—M.E. has approved three schools for E.C.'s building programme for 1951-52. These are prim. inf. sch., prim. sch. at Pennywell West, and R.C. jun. and inf. sch. at Thorney-cl.—T.C. to build about 5,709 houses on 1,600 acres of land added to the borough's area under a boundary adjustment plan.

Todmorden.—B.S. to prepare plans for 12 flats at Slade estate.

Tynemouth.—T.C. has instructed Boro' E. (D. M. O'Herlihy), 16, Northumberland-sq., North Shields, to proceed with plans and estimates for fire stn. and ambulance stn. for submission to M.H.—T.C. has approved in principle construction of an ice-rink.—Associated Lead Manufacturers, Ltd., Crescent House, Newcastle-on-Tyne, propose offices and laboratory at Halhole Lead Works.—G. K. Lee, draper, Saville-st. West, North Shields, is to erect a mantle showroom, fitting-rooms and staff rooms at corner of Saville-st., West, and Rudyerd-st., North Shields.—Architect for proposed additions to Tynemouth High Sch., is William Stockdale, 73, Howard-st., North Shields.—E.C. to build a prim. sch. on Marden estate.

Wakefield.—T.C., in conjunction with West Riding C.C., to erect county supplies block in town centre.

Wallsend.—T.C. has arranged with J. Armstrong, builder, Kenton, Newcastle-upon-Tyne, to build 120 houses.

Wallsend.—T.C. has appointed R. Burke, Lambton House, Lambton-rd., Newcastle-upon-Tyne, to prepare plans for extensions to the Civic Hall. Est. cost, £10,000.

Warrington.—T.C. approved plans for 64 houses at Tomlinson-av. and Norbury-av., for Tomlinson & Wood; rebuilding part of factory at Heatons Yard, John-st., for Winwick-st. Tanning Co., Ltd.

Westhoughton.—U.D.C. approved plans for extensions to works at Slack-la., for T. & A. Burns, also children's home at Southport-dr., for Lancs C.C.

West Lancs.—R.D.C. to erect 20 houses at Rufford, 30 at Maghull Lydiate, 32 at Aintree, 22 at Melling and six at Bispham.

Whitley Bay.—U.D.C. applied for sanction to borrow £14,517 for 12 houses on Foxhunters' site.

Wigan.—T.C. propose eight shops and 24 flats at Worsley Hall; approved factory at Wellington-rd., for J. & J. Plumpton, Ltd.; twin operating theatres and extensions to out-patients' dept. at Royal Albert Edward Infirmary, for Wigan & Leigh Hospital Management Com.

Wolverhampton.—T.C. approved plans for:—New laboratory, alterations to factory and new machine shop, etc., at Moorfield-rd., for Villiers Engineering Co., Ltd.—Extensions to factory at "Minerva Works," Walsall-st., for British Industrial Engineering Co., Ltd.—Industrial premises at Green-la. and Primrose-av., for Star Aluminium Co., Ltd.—Alterations for new offices, Zoar-st., for Maley & Taunton, Ltd.—Office extensions at St. Mary's-st., for Aymer Barrow & Co., Ltd.—Extensions to factory at Hickman-av., for Chillington Tool Co.

Worcester.—C.C. propose erection of 12 houses and four bungalows at Jenks-av., White Hill, Kinver.

TENDERS

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modification*.
¶ Denotes *accepted by H. M. Government Departments*.

Birmingham.—Erection of Kings Heath R.C. secondary school, for E.C. *W. J. Whittall & Sons, Ltd., 132, Lancaster-st., Birmingham, £102,281.

Carlisle.—90 houses at Harraby, for T.C. City E., L. J. A. Stow, 18, Fisher-st., Carlisle: *J. Laing & Sons, Dalston-rd., Carlisle.

Carlton (Notts).—40 flats at Valley-rd. site, for U.D.C. *H. Loach & Sons, Ltd., 1, Westdale-la., Carlton, £32,900.

Chapelhall.—46 houses at Kennelburn No. 2 site. Mr. Samuel MacColl, A.R.I.B.A., architect, County-chbrs., Beckford-st., Hamilton. *Myton, Ltd. (Tarran Industries), Mossend, Bellshill, £66,528.

Chester.—12 houses at Great Boughton, for R.D.C. *Alfred Halliwell & Sons (Chester), £13,710 (revised tender).

Glasgow.—First contract for the £750,000 extension to the Royal Technical College. George and Matrose, Wylie, Shanks & Wylie, F. & A.R.I.B.A., architects, 120, Blythswood-st., Blythswood-sq., Glasgow, W.C.2. *Thaw & Campbell, Ltd., Glasgow, £445,000.

Hambledon.—20 houses at Manor Field estate, for R.D.C.: *Godalming Building & Construction Co., Ltd., £28,506. Three blocks of flats at Manor Field estate: *A. L. Lamport, £11,994. Two blocks of flats at same site: *Godalming Building and Construction Co., Ltd.

Hebburn-on-Tyne.—Erection of workshops and laboratories, for proposed Mid-Tyne Technical College, for Durham County E.C. County A., Courtla., Durham: *John Jackson & Sons, Corporation-st., Newcastle-on-Tyne, £138,360 (subject to M.E. approval).

Hendon.—142 houses at Moat Park estate for B.C. Plans by Borough Engineer. *G. Wimpey & Co., Ltd., £213,600.

Hendon.—Works for B.C. 72 flats at Malcolmcres., *Roger Malcolm, Ltd. 44 flats at Abercom-rd., *Roger Malcolm, Ltd. 42 flats at Bittacy-hill, *H. Parfitt & Sons, Ltd. 80 at Edgware-rd. (Hyde Cottage), *Amalgamated Building Contractors, Ltd., £112,625.

Hindley.—32 houses for U.D.C. *J. Gaffney & Son, 277, Whelley, Wigan, £38,108. (Subject to M.O.H. approval.)

Liverpool.—Works for T.C. 170 dwellings on the Croxteth estate, *Unit Construction Co., Ltd., Liverpool, £217,150. 54 flats at Horrocks-ave., *Hibberts (Builders), Ltd., Liverpool, £95,581. 78 flats in Smithdown-la., *Albert Bros., Ltd., Liverpool, £128,073. Eight houses and 31 garages on the Cantril Farm estate, *Frank Gatley, Ltd., Lydiate, Lancs, £19,347.

Liverpool.—Works for E.C. Erection of Speke county primary school No. 2, *C. J. Doyle & Sons, Ltd., £87,000. Erection of kitchen, dining-hall and lecture rooms at C. F. Mott training college, *The Norwest Construction Co., Ltd., £44,200. First portion of Walton-la. primary school, *Rimmer Bros. (Liverpool), Ltd., £42,630.

Liverpool.—Houses and flats for T.C. Ronald Bradbury, F.R.I.B.A., City A., Blackburn-chbrs., Liverpool. 12 flats at Breek-rd. and Northcote-st., *Netherton Building and Construction Co., Ltd., £20,350. 18 flats at Avison-st., *Netherton Building and Construction Co., Ltd. 30 flats and four houses at Pollas-st., *Netherton Building and Construction Co., Ltd.

¶London (Admiralty).—Particulars of contracts placed by Civil Engineer-in-Chief's Dept., Admiralty:—

Anthorn,: 108 houses and site works, John Laing & Son, Ltd., Dalston-rd., Carlisle. *Abbotsinch*: Low pressure and hot water heating, Ian MacCullum, Townhead, Lochgoilhead, Argyll. *Deptford*: Trenching for cables, William Press & Son, Ltd., Willoughby-la., Tottenham, N.17.

¶London (Air Ministry).—Contracts to value of £500 or over for week ended February 3:—

Building in concrete construction: Y. J. Lovell & Son, Ltd., Gerrards Cross, Bucks. *Resurfacing to runways*: Limmer & Trinidad Lake Asphalt Co., Ltd., Glasgow, C.2. *Runway extension work*: W. & C. French, Ltd., Buckhurst Hill, Essex. *Surface dressing work*: Allweather Mechanical Grouting Co., Ltd., London, S.W.1. *Building work*: Kerridge (Cambridge), Ltd., Wyton, Hants; Robert Hudson & Sons (Contractors), Ltd., Sunderland; F. B. Thackray & Co., Ltd., Huntingdon; Alfred Robinson (Builders & Contractors), Ltd., Harrow, Middlesex. *Water proofing sheds*: Macartney, Ltd., Edinburgh. *Repair of hangars*: Maurice Hill Construction Co., Ltd., London, E.C.3. *Dismantling and re-erection of hangars*: Francis Jackson Contractors, Ltd., Ickenham, Middlesex. *Refelting to buildings work*: F. Parkinson & Son, Ltd., Blackpool.

Painting work: Alfred Bagnall & Sons, Ltd., Shipley, Yorks; Arundel (Contractors), Ltd., Bradford; Geo. Jones & Sons (Contractors), Ltd., Liverpool; Arnold Sharrocks, Ltd., London, S.W.11. *Maintenance work*: F. Rendell & Sons, Ltd., Devizes, Wilts; A. Ross & Co., Westgate-on-Sea; James Barclay, Kilmarnock; H. J. W. Shanks, Bushmills, Co. Antrim.

¶London (Air Ministry).—The Directorate of Contracts have placed new contracts to value of £500 or over for week ended February 10.

Electrical wiring installation: James Scott & Co. (Electrical Engineers), Ltd., Dunfermline; *Civil Engineering*: John Mowlem & Co., Ltd., London, S.W.1; *Building work*: Holborow & Sons, Ltd., Tetbury, Glos; *Painting work*: Fields, Ltd., Reading, and Reids (Norwich), Ltd., Norwich; *Maintenance work*: Brown Fraser and Co., Ltd., North Berwick, East Lothian, John Wight & Co. (Edinburgh), Ltd., Edinburgh, and John H. Pierce, Berwick-on-Tweed; *Roof Re-felting work*: Vulcanite, Ltd., London, S.W.8.

¶London (L.C.C.).—Following contracts exceeding £2,500 in value placed by L.C.C. from January 8 to February 3:— Pile and beam foundations for Blocks B and C of flats on the Elmington-rd. site, Camberwell, and for blocks 2 and 13 on the St. Paul's-way site, Stepney, Simplex Concrete Piles, Ltd.; nine blocks of flats and ancillary works on the Aldrington-rd. site, Wandsworth, Kent & Sussex Contractors, Ltd.; 15 blocks of flats and other work on the Stockwell-rd. site, Lambeth, Unit Construction Co., Ltd.; conveniences and shelter at Newington Recreation ground, Greenaway & Son, Ltd.; erection of Linda-st. school, Battersea, Whyatt (Builders), Ltd.; electrical installation at Tennyson school, Battersea, Alpha Manufacturing and Electrical Co., Ltd.

War-damage repairs at Risinghill-st. school, Fredk. Smith & Co. (Builders), Ltd.; war-damage repairs at Copenhagen school, Islington, Goddard & Phillips, Ltd.; war-damage repairs and improvements at Mawbey-rd. school, Camberwell, J. & C. Bowyer, Ltd.; war-damage repairs and improvements, etc., at Dalston secondary school, J. M. Hill & Sons, Ltd.; war-damage repairs, etc., at Wandle school, Wandsworth, Woodcock Bros. (Wimbledon), Ltd.; erection of Fleet, St. Pancras, and St. Leonard's-rd., Poplar, primary schools, Tersons, Ltd.

¶London (M.O.W.).—Contracts placed by M.O.W. during week ended February 3:—

London: Agricultural Research Council, Cunard House, Lower Regent-st., W.1, Alterations and redecorations, Haymills (Contractors), Ltd., Empire House, Hangar-la., Western-av., W.5. P.O., Royal Agricultural Hall, Islington, Internal painting, F. Troy & Co., 131, Great Suffolk-st., S.E.1. *Berkshire*: Telephone Repeater Station, London-rd., Reading, Extension, J. West & Co. (Reading), Ltd., Bath-rd., Calcott, Reading. *Hampshire*: Funtley, near Fareham, Erection of an abbatoir, Gee, Walker & Slater, Ltd., 100, Park-la., W.1. *Hertfordshire*: E.R.D.E., Waltham Abbey, Rebuilding programme, Gilbert Ash, Ltd., 2, Stanhope-gate, W.1. *Lancashire*: H.P.O., Spring-gdns., Manchester, Internal decorations, James Ferguson & Co. (Decorators), Ltd., Gore-st., Salford 3. *Yorkshire*: Moortown, Leeds, Erection of postmen's delivery office, Walter Ripley & Son, Ltd., 128, West-st., Leeds.

¶London (War Dept.).—Works contracts placed by War Dept. during week ended February 3:—

Ayrshire: Roadwork, The Limmer & Trindad Lake Asphalt Co., Ltd., Glasgow. *Essex*: Building, A. J. Dunning & Sons (Weyhill), Ltd., Weyhill. *Berks*: Miscellaneous, R. B. Burden, Ltd., Hounslow; Painting, T. H. Kenyon & Sons, Ltd., London, W.9. *Oxon*: Building, Geo. Linnecor & Son, Ltd., Birmingham 6. *Wilts*: Painting, S. W. Foster, Ltd., Radstock, Somerset. *Notts*: Miscellaneous, J. Bullock & Son, Heanor. *Yorks*: Miscellaneous, F. Shepherd & Son, Ltd., York. *Cumberland*: Building, J. Millar & Sons, Carlisle. *Tyrone*: Miscellaneous, Donegall Building works, Belfast.

Longbenton.—Erection of 48 houses at Crossleyter., for U.D.C. Surveyor, A. E. Sweetman, Council Offices, Forest Hall, Newcastle-on-Tyne; *William Leech, Ltd., Clayton-st., Newcastle-on-Tyne (subject to M.H. approval).

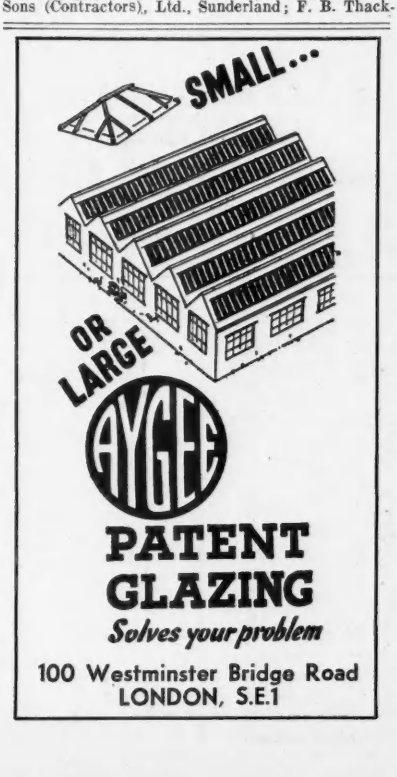
Manchester.—Works for T.C.: Erection of Poundswick county primary school. *W. J. Simms, Son & Cooke, Ltd., Nottingham; houses at Northern Moor Neighbourhood Unit: 18, *H. Jones (Builders), Ltd., Stockport; 100, *W. J. Simms, Son & Cooke, Ltd., Nottingham; 88, *W. Hodkinson, Ltd., Buxton.

Morpeth.—Houses for R.D.C. 12 at Widdrington Station: *J. Wilson, Ltd., Oldgate, Morpeth. Eight at Scots Cap: *E. Jeffcock, Ltd., New Bridge-st., Newcastle-on-Tyne.

Newburn, Newcastle-on-Tyne. — Factory for Lemington Glassworks Co. *Holland & Hannen and Cubitts, Ltd., N. E. Area Office, Howdon, Wallsend-on-Tyne.

Newcastle-under-Lyme.—County primary school at Hempstalls Farm, for E.C. *G. A. Poole, 37, Liverpool-rd., Newcastle-under-Lyme, £54,000.

Norfolk.—New school at North Walsham, for E.C. G. W. Oak, A.R.I.B.A., A.M.T.P.I., Education Architect, County Education Office, Stracey-rd., Norwich:—



J. W. Palmer, Ltd., Aylsham	£30,027
H. G. Scott, N. Walsham	28,226
H. Bullen & Son, Ltd., Cromer	26,621

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Burrell Bros., Norwich	£26,503
B. E. Gotts, Mundesley	26,110
*Tooley & Youngs, Stalham	25,166

Nuneaton.—Four shops and four maisonettes at Hill Top East estate, for T.C. *G. Cooper & Son (Nuneaton), Ltd., Midland-rd., Nuneaton, £11,024.

Oundle.—Houses for R.D.C.: 6 at Haringworth, *W. E. Barnett, Uppingham; 12 at Kings Cliffe, *Drury & Co., Ltd., Sleaford, £16,813.

Richmond, Surrey.—Factory for Algee Wear, Ltd., Crown-terrace, Richmond, Surrey. *Willment Bros., Ltd., Twickenham, £9,300.

St. Pancras.—Erection of 16 flats, for B.C., at Torriano-av.:—

Trollope & Colls, Ltd.	£42,334
Dove Brothers, Ltd.	41,614
F. G. Minter, Ltd.	41,185
C. Miskin & Sons, Ltd.	41,056
Thomas & Edge, Ltd.	40,967
Tersons, Ltd.	40,860
Leslie & Co., Ltd.	40,555
A. T. Rowley (London), Ltd.	39,941
*William Willett, Ltd.	39,563

(Amended announcement.)

Salford.—Erection of Duke-st. C, of E. (controlled) school. Cruickshank and Seward, F.R.I.B.A., 16, Princes-st., Manchester. *William Towson & Sons, Ltd., £71,927. (Subject to M. of E. approval.)

Scottish Special Housing Association, Ltd.—Contracts placed December 28 to January 24:—

House Erection.

Cairnhill, Cumnock (76 Weir, 52 Atholl, 52 Cruden), S.W. Scotland Electricity Board, Greenholm-st., Kilmarnock, electrical services. Shortlees, Kilmarnock (32 Trad., 70 non-Trad.), S.W. Scotland Electricity Board, Greenholme-st., Kilmarnock, electrical services. Wyndford, Broxburn (132 Miller), Scottish Gas Board, 25, Chester-st., Edinburgh, gas supplies. Bellsmyre, Dumbarton (50 Trad.), Cowiesons, Ltd., 3, Charles-st., St. Rollox, Glasgow, carpenter and joiner, mason and brick, plumber. Boblainy, Inverness-shire (1 Timber), F. Urquhart & Co., Plumbers, Beauly, water supply. Oakley, Fife (Weir), Barnet & Morton, Ltd., Kirkcaldy, handrail at footpath steps. Mains of Fintry, Dundee (Orlit & Atholl), A. T. Rolland, 89, Woodmill-st., Dunfermline, painting handrails to steps. Woodwynd, Kilwinning (100 Trad.), Wm. McN. Rome, Ltd., 9-11, Old-st., Riccarton, Kilmarnock, plaster and cement for 28 houses and completion of work on six houses.

Site Servicing.

Mains of Fintry, Dundee, S.S.H.A., site servicing.

House Erection.

St. Leonard's Hill, Dunfermline (150 Trad.), S.S.H.A., all trades, except electrical and plumber. Delph Wood, Clackmannan (228 Trad.), S.S.H.A., all trades, except electrical and plumber. Mains of Fintry, Dundee (100 No-Fines), S.S.H.A., all trades, except electrical and plumber. St. Leonard's Hill, Dunfermline (2 Trad.), S.S.H.A., all trades, except electrical and plumber.

Southampton.—Conversion of "Homelands," Bassett-av., into home for aged persons, for B.C. B.A. Quantities by E. Morley Smith, A.R.I.C.S.:—

Crook Bros.	£4,920
Thompson & Spurr	4,490
Rice & Son, Ltd.	4,400
H. Candy & Son	£4,390
S. F. Paull	4,370
Mullen & Lumsden, Ltd.	4,360
A. L. Lansley & Co., Ltd.	4,219
The South Hants Building Co., Ltd.	4,196
John Lewis Building, Ltd.	4,178
Butler Bros. (Southampton), Ltd.	4,077
Louis S. Tuffin	4,035
Davies Evans (Contractors), Ltd.	3,926
*E. H. Burgess, Ltd.	3,834
*F. J. Bullen	3,703

(List of tenders submitted.)

Southampton.—The successful tenderer for the erection of a temporary factory at Cable-st., Northam, was Messrs. Mullen and Lumsden, Ltd. (£3,211) and not Messrs. W. C. & B. Lintott (£3,077) as given in our last issue.

South Shields.—Erection of 10 houses at Mortimer-rd.: *Henderson Bros., Smith-st., Tyne Dock, South Shields.

Stirling.—Reconstruction and additions to Messrs. Drummond & Sons' warehouse, Murray-pl. G. Davidson & Sons, architects, Murray-pl., Stirling. Excavation, brick, building and allied works, *D. and J. Ogilvie, Stirling. Joinery, carpentry and allied works, *James Foster, Stirling. Plumber and sanitary engineer works, *J. and J. Duff, Stirling. Asphalt works, *The Scottish Speedwell Co., Ltd., Glasgow. Electrical fittings and installation, *Henderson and Fell, Ltd., Stirling. Plaster, lathing and allied works, *J. and J. Ogilvie, Stirling. Steel structural works, *The Lambhill Iron Works, Ltd., Maryhill, Glasgow. Painting and decorating and allied works, *J. Smith & Son, Stirling. Glazing and allied work, *George G. Kirk, Ltd., Glasgow.

Sydney (Australia).—New bridge at Sydney for the Secretary of the New South Wales dept. of main roads. *The Cleveland Bridge and Engineering Co., Darlington, £A600,000.

Wakefield.—40 houses at Eastmoor and 14 at Darnby estate, for T.C. Spooners (Hull), Ltd., Glebe-rd., Stoneferry, Hull. (Subject to M.O.H. approval.)

Wallsend.—Factory at Wallsend for J. and E. Hall, Ltd., of Dartford. Plans by Cackett, Burns Dick & McKellar, 21, Ellison-pl., Newcastle. *J. G. Thompson, 28, Fowler-st., South Shields.

Wellington.—Houses, for R.D.C.: 8 at Longton-on-Tern, *C. R. Coxhill, Ltd., Sherwood, Lilleshall, £11,882; 8 at Wrockwardine, Geo. Linnecor & Son, Manse-rd., Hadley, Wellington.

West Auckland, Co. Durham.—Factory extension for Kirk & Co. *Holland & Hannen and Cubitts, Ltd., N. E. Area Office, Howdon, Wallsend-on-Tyne.

Westhoughton.—40 houses and 8 bungalows, for U.D.C., *Vessey Bros., Ltd., Marple, Cheshire, £56,607.

Worcs.—Erection of junior school and kitchen at Birchen Coppice county primary school, for E.C. *A. H. Guest, Ltd., Coalbourne Brook, Stourbridge, £56,688.

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